

Fall 2017

The Political Economy of State-level Emergency Unemployment Relief: The Case of the New York TERA, 1931-37

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The political economy of state-level emergency
unemployment relief: The case of the New York TERA,
1931-1937

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Senior Project
The Division of Social Studies
of Bard College

by

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To my family for inspiring me each and everyday.

Plagiarism statement

I hereby confirm the authenticity of this project: I have closely read and understand the College's policy on plagiarism and academic honesty. Unless stated otherwise herein, the work is a culmination of my own ideas and words. All lines of thought independent from mine have been attributed to their respective authors, whether cited word for word or paraphrased.

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Statutory definitions

- Administration: The temporary state agency created by Chapter 798 of the New York State Laws of 1932, the Wicks Act or, “Emergency Relief Act” to be known as the temporary emergency relief administration.
- City commissioner: Chief administrative public welfare officer or board of a city.
- County commissioner: Chief administrative public welfare officer of territory of a county beyond the limits of a city.
- Municipal Corporation: A county or city except a county wholly within a city.
- Public welfare district: One of such districts created by the Act.
- Local bureau: One of the temporary emergency bureaus created under the Act.
- Work relief: Wages paid by a municipal corporation to persons, who are unemployed or whose employment is inadequate to provide the necessities of life, and/or their dependents, from money specifically appropriated or contributed for that purpose during the emergency period, for the performance of services or labor connected with work undertaken by such corporation independent of work under a contract or for which an annual appropriation has been made.
- Home relief: Shelter, fuel, food, clothing, light, medicine or medical attendance furnished by a municipal corporation to persons or their dependents in their abode or habitation and does not include relief to veterans under existing laws, old age relief or allowances made to mothers for the care of dependent children.
- State aid: Payments to a municipal corporation by the state for work relief and/or home relief furnished during the emergency period in accordance with provisions of the Act.

**The above definitions are as provided by the original Wicks Act, Chapter 798 of the NY State laws of 1931*

Preface

Ex-President Hoover’s conception of “rugged individualism” became deeply unpopular in the midst of the Great Depression. Indeed, its perils were significant enough to force a man who championed “self-reliance” in the face of poverty to institute large-scale public works projects to off-set falling demand. Yet, the catastrophe is more than a cautionary tale of bank speculation. Instead, it irrevocably changed how we conceive of economic policy, pushing scholars to re-evaluate lessons learned from the Neoclassicals (see chapter 4). Still, what was once considered indelible has fallen to the wayside. That is, roughly eighty years after the onset of the Depression, the U.S. fell into the Great Recession. Though it recovered, there is anticipation of fiscal policy in the near future that could set us down a similar path.¹ As such, national political discourse errs on the side of considerations centered on the Federal government. No doubt this is important. However, a point oftentimes slighted is the question of, as Governor Roosevelt asked, “what is the role of state?” More precisely, to what extent are lower-level governments capable of administering counter-cyclical policy? Should these governments undertake the task of supplying the needs of its people? If so, what does that look like?

This senior project presents an analysis of the role of the state during the Great Depression. As such, this work situates itself at the intersection of politics, history and economics. The politics dimension is addressed by scrutinizing the need for relief and the details of what came next. The historical component is evident from the time period under consideration. More specifically, this senior project builds on detailed archival work from primary sources found online, in dusty publications or on the site of the FDR library in Hyde Park, NY. Finally, the economic component of this senior project is apparent in the research questions and the methods employed.

Much can be said of the TERA. Likewise, much can be said about the process of spending nearly a year writing about it. Though the topic provided significant challenges, we are overall glad to provide three major contributions to the literature: (1) one of the first works exclusively focused on the program, (2) a proprietary monthly dataset primarily composed of archival data, covering the period 1925M01-1938M06, and (3) to our knowledge, its first empirical analysis. The overarching hope here is that this ambitious work provides additional insights into state-level emergency unemployment policy.

In what follows, errors, typographical or otherwise, are inevitable.

HASANI J. GUNN

¹See US House of Representatives 2017.

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Abstract

Governor Franklin D. Roosevelt created The New York State Temporary Emergency Relief Administration (TERA) in response to the Great Depression. Operating from 1931-37, this state-level jobs-and-income style policy featured comprehensive in-kind assistance, “home relief,” and emergency unemployment relief, “work relief.” Though the program is fascinating just in this respect, it has been systematically overshadowed by the alphabet soup of New Deal era relief policies. We revisit the TERA to shed light on what it offered to the people of NY and, overall, what it offered to the economy. We find significant evidence that the program stabilized the State economy by reducing unemployment and generating private sector job creation through the multiplier-accelerator effect.

JEL classifications: H75, I38, N32

Keywords: Fiscal Policy; State and Local Government; Employment; Macroeconomics

Chapter 1

Introduction

Though recovery from the Great Depression is often regarded as a lodestar for modern economic policy, there is still much to say about the period. The literature focuses on its causes, effects, mitigation, and future prevention (Skocpol and Finegold 1982, 1990; Bernanke 1994; Romer and Romer 2013). The common theme here is less obvious than the Depression itself or the economics underlying it. Instead, it is a matter of who led the charge for economic recovery: the Federal government or the Federal Reserve. This senseless restriction has slighted the wave of so-called “little New Deals” preceding the New Deal era (Keller 1962; Ingalls 1974). The leading program of this type, the NY State Temporary Emergency Relief Administration (TERA), was implemented by Governor FDR, providing relief from November of that year to June 1937. The program aimed “to relieve the people of the state from the hardships and suffering caused by unemployment (NYS Legislature 1931).” As such, financed by modest tax increases and intergovernmental appropriations, the TERA furnished funds to local emergency relief bureaus (ERBs) for the administration of home relief and work relief. The former provided needy families with comprehensive in-kind assistance—food, clothing, housing, medical and nursing care, light, fuel, insurance advising, etc. The latter was a direct job creation program, offering the prevailing wage rate for work on public projects. Here, our central questions are broad: how did the program contribute to the well-being of its beneficiaries? In what ways, if at all, did it help recover the NY State economy? To answer these questions we provide, to our knowledge, the first economic analysis of this program, enriched with a detailed historical-political account.¹ In doing so, we make several contributions to the literature: we fill in the gaps left by past scholars, develop a proprietary monthly dataset, and provide significant estimates of the program’s economic effects.

One of the reasons why the TERA is fascinating topic is because it was a state-level relief

¹For conceptually similar works, see Amenta *et al* 1987 and Amenta and Carruther 1988;.

program. While the New Deal frequently serves as a guide for government intervention, the TERA imparts a relatively more accessible framework for economic recovery. That is, in the sense that the program was implemented at a lower level of government, we develop a better understanding of what measures the State can undertake to mitigate economic crises, in part, independent of Congress. NY State was hit particularly hard by the Depression: it was among one of the largest manufacturing states in the country and controlled nearly one quarter of US bank deposits. In this sense, studying its policy prescriptions can inform us as to how and in what ways it is best to address persistent unemployment.

To date, several substantive works have focused on the TERA.² Much of this small body of literature is concerned with the Act’s legal interpretations as well as its inner-workings and operations. Former Director of Research of the TERA, Emma Lundberg, for example, wrote three papers on the topic. The first (1932) was directed towards updates of the program after its first year. Specifically, this article explained the Wicks Act’s provisions, administration, and concept. The second (1934) conducted a study of work relief families, reporting limited descriptive statistics of the households.³ The third (1935) presents descriptions of the program’s relief caseloads and expenditures, with the objective of identifying what the needs were and how they could be met (Lundberg 1935, p. 485). Whereas Lundberg is concerned with the beneficiary, Radomski (1947) is concerned with the system as a whole. He provides a comprehensive account of the TERA focused on the bureaucratic intricacies and its historical context, covering the period 1931-35. Finally, Ingalls (1974) provides an in-depth narrative of the TERA’s history centered on the political process underlying the

²Few other works—Folks (1935) and Johnson (2014)—tangential to the TERA, nevertheless provide valuable insight into the ERB experience. Folks (p. 613-15) details findings made in six investigations of relief measures in NYC: Mayor LaGuardia’s Committee on Unemployment Relief, the Welfare Council of NYC, Governor Lehman’s Commission on Unemployment Relief, the NYC Board of Aldermen, and the Works Progress Administration (WPA). Johnson (p. 33-60) gives a thorough account of the history underlying the TERA’s creation, and explains the value of the projects undertaken by the Onondaga Emergency Work Bureau (p. 61-117). In particular, he, similar to Davidson (1988), lends his attention to the lasting value of the projects to the community. Yet, he stresses the historical value of these projects within the context of conservation and Davidson (p. 42-47) stresses how these projects contributed to recreational participation.

Directly related to our topic, but far more cursory is, granddaughter of the TERA’s first executive director, June Hopkins’ (2015) brief article. Her work provides a sufficient overview for the most part, but is misleading and not comprehensive. For example, she states that “[public projects] would not interfere with private industry, and would pay wages in *cash* (emphasis added) at the prevailing rate for the type of work performed.” She is correct that the intention of TERA projects was to not interfere with private industry and that the pay was conceived of as the prevailing rate for the type of work performed. However, cash payment for work relief is false. On the contrary, work was paid by check, any other form of payment was strictly prohibited (NYS TERA 1934, p. 9). Direct cash payments were administered by home relief after a 1934 amendment. Indeed, even in this case the “cash” was distributed as a check.

Published reviews of primary reports have been omitted.

³Inasmuch as the study aimed at “[t]hrowing some light upon the present paradox of rising relief rolls,” it is strange that matters of race, sex, and education were discounted in favor of income and age—though not unimportant in their own right (Lundberg 1934, p. 627).

administration of emergency relief.

The remaining structure is as follows: Chapter 2 places the program in its historical and political context. Chapter 3 presents an in-depth analysis of the types of the benefits offered. Chapter 4 discusses the place of the TERA in economic theory. Chapter 5 provides an econometric analysis. Chapter 6 summarizes our results. We find significant evidence that the program stabilized the State economy through reducing unemployment and inducing private sector employment via the multiplier-accelerator effect.⁴

⁴Specifically, we find little empirical support for the neoclassical model, strong support for the Keynesian model, and a positive relationship between relief spending and private employment.

Chapter 2

The TERA

After an unsuccessful bid for Vice President on the Cox-Roosevelt ticket, Franklin largely disappeared from the political scene to tend to his polio. Yet, he soon came under the Democratic Party's radar following his fervent support for NY State Governor Alfred Smith's 1924 Presidential bid. News of Smith's decision to run for President a second time was complicated: the GOP had substantial electoral support from past years of economic prosperity and secured much of the rural, prohibitionist, and KKK-affiliated voting blocs. Moreover, there were few prospects of a gubernatorial candidate capable of securing a victory amidst this chaos. This led the Party leaders to encourage Roosevelt to consider the seat.

After narrowly winning the election, Roosevelt's first term was plagued by the Great Depression. With no end in sight, he embarked on an experimental policy measure that eventually came to influence his New Deal policies as President. Section 2.1-2.3 cover Roosevelt's rise to the governorship. Sections 2.4-2.6 detail the need for relief and how it was met. In particular, it explains NY State's economic conditions, the political process of the TERA, and an overview of its legal framework.

2.1 The reluctant candidacy

Maintaining his balance using the edges of the podium with his crutches by his side, FDR stood before the audience at the National Democratic Convention inside the Madison Square Garden, stating "The most pronounced ill from which the country suffers today is a lack of confidence in government...We need as President one in whom the masses of the people, the great cross-section of American public opinion, will regain faith." He declared that, "Confidence and faith such as this has been won by the Governor of this state...This Governor of ours is the most dangerous adversary that the Republican party ever had to fear." Captivating the audience, Roosevelt exclaimed: "He is the 'Happy Warrior' of the political

battlefield...this man” he continued, “who all admit can bring us an overwhelming victory this year—this man of destiny whom our State proudly dedicates to the nation—our own Alfred E. Smith.”

Although June 26 was remarkable in that the day marked FDR’s return to public life, the 1924 Convention, or the “Klanbake,” was noted for its record-breaking length, violent conflict, incontrovertible racial and religious bigotry, and hard-earned compromise. The Klanbake was the Democratic Party’s point of juncture. The Democratic nomination was less of a question of who may best secure victory. Instead, it served as a greater question of what defined the Party. This question was centered on bigotry and prohibition.

Roosevelt’s Happy Warrior, NYS Governor Al Smith, had a good chance of grasping the nomination. Nearing the end of his second term, the Tammany Hall-backed Governor capitalized on his common touch, years of public service—Assemblyman, Majority Leader, Chairman of the Ways and Means Committee, Minority Leader, Speaker, President of the Board of Aldermen, Sheriff of NY County, and tenure as Governor—and legislative advocacy for worker’s rights to gain support for his Presidential bid. Yet, among leaders of the Democratic Party, Smith was considered a poisoned chalice: he had the popularity and political acumen to win the Presidency, but was too far left.

On one hand, in his first term as Governor, he cemented his reputation as a progressive. Influenced by his own working-class background, Smith double-downed on populist policies. He supported legislation and amendments that sought to grant women’s suffrage, extension of labor laws, institution of health and maternity insurance, increasing teacher’s salaries and appropriations for mental health facilities, curtailing rent profiteering, and more (*New York Times* 1944). On the other hand, his affiliation with the Tammany Hall political machine, his Catholicism, denouncement of prohibition, and condemnation of the Ku Klux Klan (KKK) rendered him divisive.

Receiving support from the so-called “wets,” along with the racial, ethnic, and religious minority bloc, crucially, Smith also received help from the soon deceased Charles “Silent Charlie” Murphy, and his friends James Farley, Franklin and Eleanor Roosevelt and Louis Howe (Pringle 1927, p. 42). Prior to his death in April that year, Murphy revitalized Tammany Hall. As head of Tammany, he maintained the century long tradition of securing electoral victories for pro-poor local politicians. At the same time, He took strides to distance the “new Tammany” from the “old Tammany.” Though the machine’s troubled past of money-laundering and embezzlement loomed, Tammany’s reputation for corruption was mitigated. Indeed, by stepping away from some of the power politics championed by the infamous Boss Tweed, the machine was cast in a better light.¹ At the same time, with one of their own

¹Prior to his trials, escape to Spain and death in prison, former head of Tammany Hall, William “Boss”

Tammany boys standing the chance of being nominated US President, Smith and Murphy effectively led the machine from state to national influence. Nevertheless, Tammany's public record was not expunged: Smith's affiliation with the infamous political machine casted doubt on his candidacy.

His main competitor, former Secretary of the Treasury, William McAdoo Jr. was a Protestant, prohibitionist, anti-political machine candidate whose base largely constituted members and supporters of the KKK. The KKK generally approved of him, but supported him because Smith represented precisely what they hated (McVeigh 2001, p. 5). Accordingly, Klan members focused their energy on disrupting Smith's candidacy: from violence against non-Klan convention attendees to publicly beating an effigy of Smith into a pulp. The rising tensions between both wings of the Democratic Party did little to advance their agendas. Instead, the high tensions and violent tendencies of the convention produced over two summer weeks of internecine conflict, the approbation and reprobation of KKK ideology, a record 103 ballots, and a compromise candidate, John W. Davis. Though Smith failed, his time at the convention set the stage for FDR's comeback. Smith's political ascension, regardless of victory or loss, influenced the coalescence between expert reformers and progressive politicians. In other words, Smith's ties were imperative for FDR's success. This is because the leading figures—the Tammany machine, Frances Perkins, Farley, Robert Moses, and Harry L. Hopkins—who would eventually aid Roosevelt through his governorship and presidency became acquainted with him through his friendship with Smith.

2.2 Convincing FDR

Following the convention and Davis' loss to incumbent Coolidge, Roosevelt disappeared from political life once again. Though he kept in contact with Smith and much of the Democratic Party, he went off to Georgia to continue his polio treatment. During this time, Smith was in his fourth term as Governor and decided to make a second run for President. The problem, however, was a question of continuity: Governor Smith dominated state politics for years, leaving few realistic prospects for successors. In conference with one another, Democratic Party leaders came to the agreement that the 1928 gubernational candidate needed to be likable enough to appeal to both rural and urban voters. To accomplish such a feat, they reached the consensus that this would-be candidate should be a charming Protestant with years of experience in public service, a strong relationship with Upstate

Tweed, reigned over NY. He preserved power over NYC through using his ties to the local government to increase social services and government donations to private charities. Indeed, although *The New York Times* exposé begged to differ, some historians argue that there was no proof that Boss Tweed profited from his schemes. See Share 1995.

voters, and a “straddling” stance on prohibition (Bellush 1955, p. 6). They felt that without these traits, Smith could lose his home state during the election, meaning a victory for Herbert Hoover.

The leaders considered four men for nomination: Owen D. Young, augmentation chairman of the Radio Corporation of America, former justice of the NYS Supreme Court, Senator Robert F. Wagner, Chairman of the Democratic Party finance committee, Herbert H. Lehman, and FDR. Ultimately, they believed that Roosevelt was the only candidate capable of taking on the Republicans. FDR claimed the adoration of many through his close support of Smith in the 1924 presidential campaign. His “Happy Warrior” speech filled the homes of Americans through the national radio broadcast, marking him, in a sense, the Democratic Party’s sweetheart. Accordingly, they believed that with FDR on the Democratic ticket, Smith could secure the additional forty-seven electoral votes, moving him closer to the Presidency. Roosevelt declined their call to candidacy, encouraging the Party that his governorship was not a prerequisite to Smith’s victory. He explained that Smith’s extraordinary leadership throughout the four terms were more important. Perhaps their persistence in pursuing Roosevelt was evidence that they knew he was lying.

FDR and his close political mentor, Louis Howe, believed that the question of who would succeed Smith was immaterial to the Presidential campaign. Instead, the two maintained that Smith would lose NYS, thereafter leading to a Herbert Hoover Whitehouse. This is because they thought that Smith’s campaign would not appeal to the working class and what Ryan (1928) dubbed the three P’s: prohibition, prejudice, and prosperity.

Out of Tammany’s control after gaining national attention, Smith became closer to the business community. His campaign manager and Chairman of the National Democratic Committee, John Raskob, was a General Motors executive, Vice President of E.I Du Pont de Nemours, and held leadership positions at various banks (Davis 1985, p. 18).² In terms of the three P’s, Smith was considered too controversial because of his outspoken stance on prohibition; he was also maligned earlier for his Catholicism and decrying racial violence. Moreover, the Republicans commanded an unusual wave of support due to the economic boom of the Roaring Twenties. Nevertheless, The Party leaders did not accept FDR’s false affirmations. Instead, they attempted to reach him regularly.

The chieftains placed phone calls and sent letters and telegrams roughly 1,080 miles away from Albany to Warm Springs, GA hoping to persuade FDR to reconsider. He ignored calls from Smith, Farley and the others. When he did answer them, he declined their entreaties, stressing the need to attend to his health. Since 1924, FDR went to Warm Springs regularly

²Without the working-class vote, Smith would lose NYS. His continued collaboration with Raskob led FDR and Howe to doubt a possible Smith victory.

to receive hydrotherapy. In the absence of politics, FDR realized a moral obligation to aid other polio sufferers. He transitioned from visitor to decision-maker, investing his own capital in expanding and improving facilities. The time at Warm Springs improved his overall health. Though his mobility never fully recovered, his walking noticeably improved. Howe and Eleanor encouraged Franklin to maintain the momentum: politics could wait, health could not. Still, the Party was convinced that with FDR as governor, Smith would become president. That said, notwithstanding his refusal, the Party leaders persisted. Crucially, by Oct. 1, 1928, Smith managed to reach Franklin by requesting that Eleanor pass his call through. The outcome was less than a conversation, and more of a negotiation.

Smith, along with other prominent Democrats—Raskob, Henry Moskowitz, and the Lieutenant Governor pick Lehman—tried once again to convince Roosevelt. Smith appealed to FDR’s sense of duty, explaining that without FDR’s candidacy, the Presidency and Governorship could both fall to the Republicans. Lehman appealed to FDR’s peace of mind. After coming to agreement with Smith, Lehman was prepared to handle the governing should FDR be elected governor. This arrangement would allow Roosevelt to hold the title, save the duties and pursue his health. Chairman Roskob appealed to FDR’s wallet. He offered to cover the cost of expanding FDR’s center for infantile paralysis, pledging to grant him \$50,000 personally (Bellush 1955, pp.8-9). From this conversation, it became clear that regardless of his protest, FDR would be the Democrat’s gubernatorial nominee. Indeed, referring to the possibility of the Party drafting him at the state convention in Rochester, Roosevelt explained that he would acquiesce, “if in the final analysis the convention insisted on nominating me, I should feel under definite obligation to accept the nomination (FDR 1928).”

FDR’s inner-circle was concerned with the political and physical threats the campaign could hold. Initially he and Howe planned was to wait out the 1928 election cycle and re-enter the political arena in 1932. In the meantime, Franklin would use the several years to physically recover and increase his political popularity (Davis 1985, p. 18). From there, the goal was to win the governorship in 1932, holding the role for two terms, and then run for President. Party pressure was eroding this private plan, seemingly pushing Roosevelt toward political suicide: a failed gubernatorial campaign could tarnish his reputation, crippling his electability in the long-run. In other words, Smith would lose and, in doing so, could bring Franklin down with him. The fundamental difference, however, was that Smith’s downfall would not impede his health. FDR’s secretary, “Missy,” hoped that he would lose the campaign so that he could focus on recovery. Howe was concerned for Franklin’s health, but was frustrated with FDR’s recalcitrance.³ Yet, at this point, their unease no longer

³Fourteen years earlier, when Howe left the Roosevelts to go on vacation, he discovered that FDR went

mattered: at the NYS Democratic Convention in Rochester, on Oct. 2, 1928, about a month before the election, Roosevelt was announced as the gubernational nominee.

2.3 On the campaign trail

Formally accepting the nomination two weeks later on Oct. 16, Franklin declared “I cannot fail to heed a call to more active service in a time when so much is at stake.” Stating that “Progress means change. A perfect system of 1918 may be outworn ten years,” Roosevelt laid out his platform (FDR 1928b): (i) Continue and make permanent Gov. Smith’s reforms; (ii) advance legislation centered on the improvement of social-welfare, education, public health, housing, and elderly care programs; (iii) pursue perpetual state ownership of water power resources; (iv) reform of the state judicial system; (v) improve agricultural areas; and (vi) reorganize the state and county governments.

On the national level, the Smith-Robinson ticket attempted to appeal to the rural voters they were poised to lose, championing credit aid loans as well as the “creation of a federal farm board to assist the farmer and stock raiser in the marketing of their products (US House of Reps. 1928, p. 298-301).” Among other policy positions, they supported an end to the use of the Federal Reserve system for the “advantage of stock market speculators;” and developing “a scientific plan whereby... unemployment appropriations shall be made available for the construction of necessary public works (US House of Reps. 1928, p. 294-312).” As a whole, the NYS Democratic Party called for states’ rights for prohibition, on-cycle state elections, a statewide park and parkway system, an advisory minimum wage board, old-age pensions, among other propositions (*New York Times* 1928a; Bellush 1955, p. 9-11).

On the campaign trail, with his team—Samuel Rosenman who helped with writing speeches and Farley his campaign manager, among others—FDR double-downed on his vision for the Empire State. In response to prejudice, on October 17 in Binghamton, NY, he stated that “religious bigotry in this campaign is more glaring in the out-of-the way farms and hills and valleys and small towns,” and that, “from the point of view of one who wants to eradicate ignorance, because ignorance is at the bottom of it all,” that he wanted the election to go beyond bigotry (FDR 1928d). He did not want to receive any votes on the basis that his challenger was a Jew, and was quoted that same month saying “attacks on Smith’s religion should be punished by deportation (Bellush 1955 p. 17-19).” The Republican gubernational candidate, NYS Attorney General Albert Ottinger, campaigned on high tariffs—explaining that this policy was at the center of high wages—and the economic inefficiency of the Democrats. Replying, FDR said that “when you come right down to it, almost behind his back and entered the election for the US Senate, representing NYS (Davis 1985, p. 29).

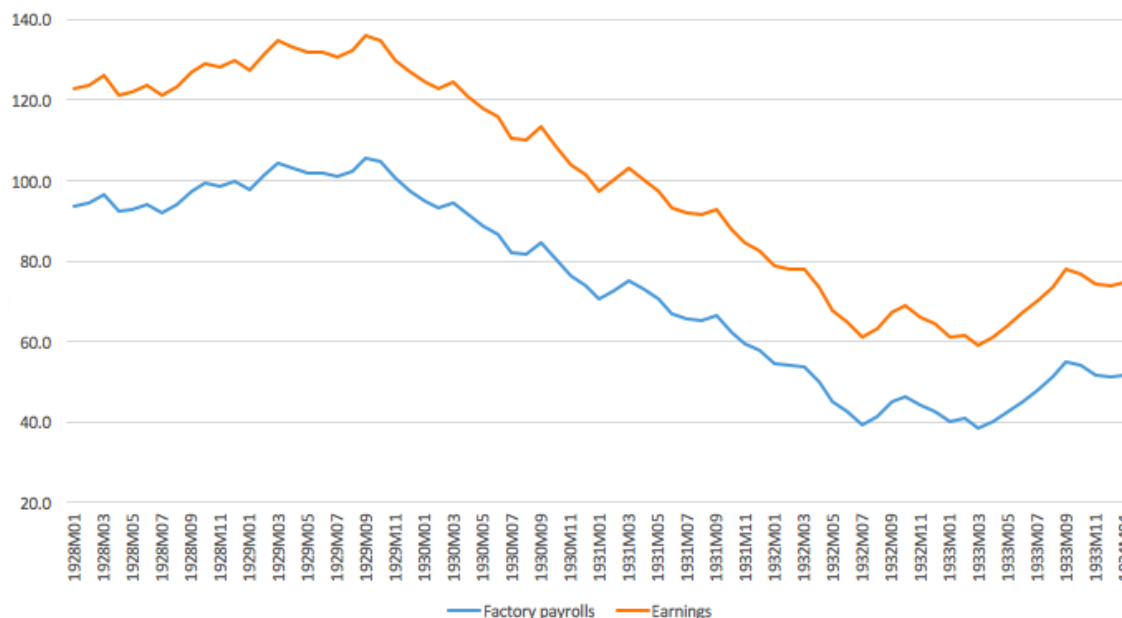
anybody who believes in having legislation move with the times is called a radical (FDR 1928e).” Ottinger continued to stand as a “dry,” supporting prohibition. And Roosevelt continued to stand for state’s rights, arguing that prohibition was ineffective. The GOP tried to enlist support from the Jews. If nominated, Ottinger would be the first Jewish person to run for a statewide position in NYS. This meant that the Republicans could easily subvert the Democrat’s stronghold over the Jewish voting base (Tobin 2014, p. 256). Similarly, Farley worked on garnering further support from rural voters, undercutting would-be GOP support.

The political capital—sympathy and esteem—Roosevelt undoubtedly attained through his struggle with polio was weaponized. The Republicans did little if anything to attack the candidate’s character. But they did cast him as a potential liability in Albany: an already ill man’s health would only falter under the pressure that lies sitting before the desk. Moreover, they used his candidacy as a way to doubt the morality of the Democratic Party. After all, pressuring a sick man into entering an intense race is not a good impression on voters. Still, coming to FDR and the Party’s defense, Gov. Smith argued that “We do not elect him for his ability to do a double backflip or handspring (New York Times 1928e).” Roosevelt too, remarked towards the end of the campaign “I am one who hates to feel himself a cause of worry to others... if it would really ease their minds, I will gladly furnish any of the Republican campaign managers with proper weekly bulletins containing respiration, temperature and general physical condition (FDR 1928c).”⁴

Throughout October FDR’s popularity transcended party lines, as he received endorsements from non-Democratic sources. Throughout October, headlines reading “Union Men Applaud Roosevelt Pledge; Labor Leaders Hail His Promise to Put Through Real 48-Hour Law in Industry,” “Roosevelt Urges Reform of Courts,” “Roosevelt Sees Even Run Up-State; He Declares Estimate of 300,000 Majority There for Ottinger Will be Cut to Zero,” and “Support F.D. Roosevelt. Republicans Backing State Democratic Ticket” circulated throughout the State (*New York Times* 1928a, b, c, d). By the night of election day, Nov. 6, Smith lost in a landslide to Herbert Hoover, but Roosevelt still held his own. In the end, FDR defeated Ottinger by only 25,564 votes, an election so close that Ottinger refused to concede for two weeks.

⁴Moving on, he concluded, “I must admit that no man, compelled to move somewhat slowly, is a very good dodger. For the last four years these gentlemen have spent most of their time dodging issues, dodging responsibility, dodging, rather poorly, the verbal missiles of Governor Smith and I have been grieved to note, quite frequently dodging brickbats thrown in brotherly strife at each other.”

Figure 2.1: New York State factories, payrolls and average weekly earnings, indexed



Source: NBER MacroHistory Database

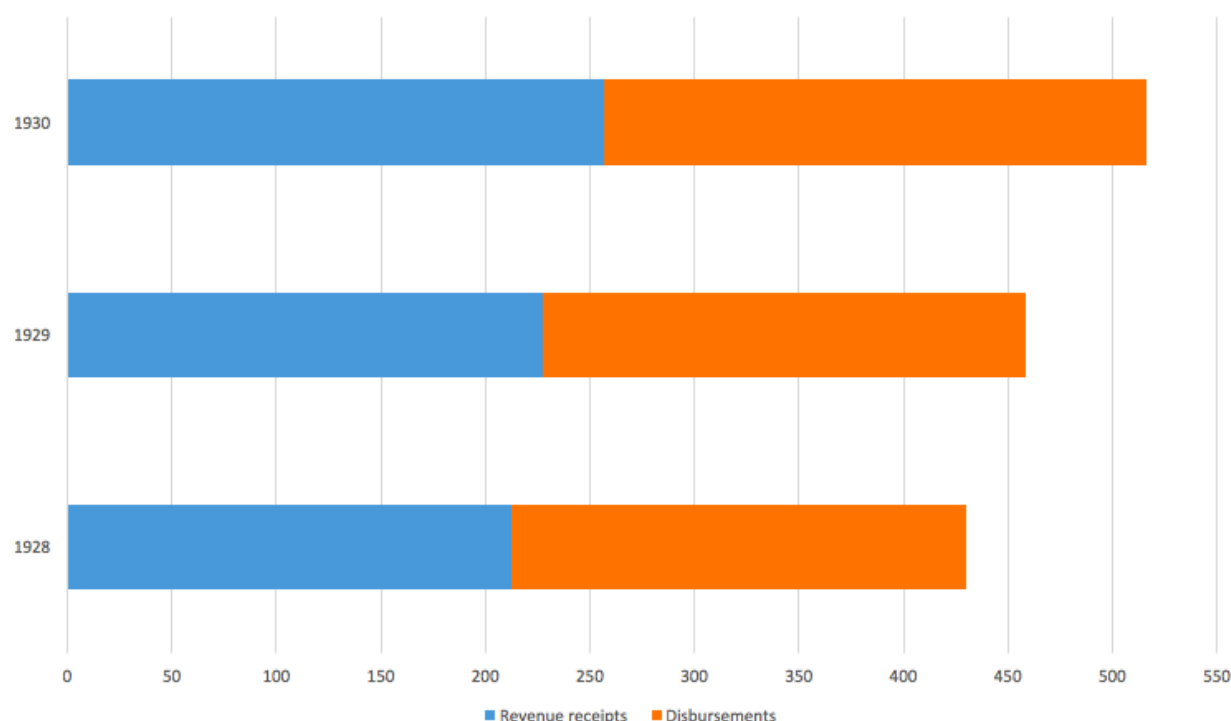
2.4 “What is the role of the state?”

The Great Depression started nine months into Gov. Roosevelt’s first term.⁵ The stock market crash was especially difficult for NYS because it controlled about one quarter of the US’ bank deposits and was one of the largest manufacturing states in the nation. Between 1929 and 1930, state net-funded debt increased from about \$250 million to \$276 million (NYS Comptroller 1930). From 1929 to 1933, the Empire State experienced an unprecedented fall in factory wages from 101.7 to 46.5, and an increase in nonagricultural unemployment from 656,000 to 2,061,000. Figure 2.1 presents monthly indexed NYS factory payrolls and average weekly earnings for the period 1928M01-1934M01. In this time period, before the depression (January 1928-September 1929), the index of state factory payrolls averaged 98.2 and the corresponding weekly earnings averaged 29.7. Afterwards, a steady trend took place, beginning with a gradual decline to 80.4 and 28 in October 1930, an average of 90.8 and 29.2 one year into the depression. The trend continues reaching a minimum of 38.4 and 20.7 in March 1933.

Figure 2.2 shows NYS annual revenue receipts and disbursements in millions, 1928-30. In 1928 disbursements exceeded total receipts by about \$5.1 million. Following the Depression, there was a simultaneous increase in receipts and disbursements, an increase of about \$14.5

⁵See Schneider 1938; White 1990; Rappoport and White 1994; Carlson, Mitchener, and Richardson 2011.

Figure 2.2: New York State proportion of disbursements to revenues, millions



Source: Annual report of the Comptroller, State of New York (1930): Part III: Table of comparative statistics of the State of New York for fifty years, p. 350-51.

and \$13.4 million, respectively. Between 1928 and 1930, revenue receipts increased by nearly \$44 million and disbursements by \$42 million. Throughout these three years, the revenue receipt and disbursements deficit ranged from \$3.5 to \$5.1 million.

In Albany, Roosevelt proposed a plan to solve high unemployment: “the local collection of accurate statistics on unemployment; coordination of private and public activities in connection with unemployment relief; the active stimulation of small-job campaigns,”—he suggested that private and public industries, as well as towns and cities cooperate in making job opportunities available—establishment of free public employment exchanges in every locality, to be linked up with the state state employment service wherever possible; and the immediate institution of local public works projects (Schneider 1938, p. 297).⁶ The Governor appointed a Committee on Stabilization of Industry for the Prevention of Unemployment “to act as a clearing-house and advisory body for relevant plans submitted to State officials (Bellush 1955, p. 103).” The Committee proposed an “[i]ncrease of appropriations for the

⁶To relieve distress, public and private agencies came together to form a de facto patchwork of initiatives aimed to reverse the address the unemployment issue. For example, The “man-a-block” program, encouraged the few employed citizens on a given block to create employment for an unemployed neighbor. It did this by having the unemployed complete work in exchange for a wage pooled together by the employed (Seldes 1933; Schneider: 297).

State Employment Service...set up a State Planning Board to help frame a long-time program of public works for state and municipal governments,” as well as stimulate additional work for citizens, whether through the public or private sectors.⁷

Prior to the depression, care for the destitute was relegated to public and religious institutions. From 1609 to 1664, NY State (then-New Netherland) had a system of outdoor relief headed by the colonialist Dutch clergy, taking collections for the poor during church services (Fernow 1883; Fensterstock 1941).^{8,9} After the American Revolutionary War, social welfare became centralized and relatively more generous. City charters, such as the City Charter of Hudson (1785), authorized provisions for almshouses to relieve the poor (Fensterstock, p. 20).¹⁰ As time progressed, social welfare evolved, increasing oversight and adding categorical assistance. The State Board of Charities was created in 1856. This allowed the creation of specialized centers for juvenile delinquents, women, orphans and indigenous children, and

⁷Part 1 of the report focused on the role of seasonal, cyclical, and technological unemployment in the Depression and the ways in which private industries circumvented issues like weather changes and over and under regulation of industry. Of the many suggestions made, the report made the case for why NYS should pursue stimulating consumer and dealer demand in the off-season, scheduling production, introduce side lines and fillers, and encourage industries to embrace “flexible working days” rather than lay-offs. Part 2 of the Committee report consisted of policy testimonies by managers in private industries and the prospect of unemployment insurance as a way to stabilize incomes during times of high unemployment.

⁸Outdoor relief was assistance to the poor through providing anything from sustenance, to clothing, and money. The “outdoor” component of the term refers to the absence of the requirement for the recipient to be a part of a charity institution. For example, in agricultural times, outdoor relief mostly took the form of the distribution livestock. When active, outdoor relief was temporary; the “indiscriminate giving” was reserved for economic emergencies (Radomski 1947, p. 10). Indoor relief was assistance to inmates of almshouses that required recipients to live in designated institutions to maintain eligibility for benefits.

⁹After the Dutch surrendered to the English in 1664, in the following year, the new mother country introduced Duke’s Law. That is, a code that made each parish responsible for raising funds through taxation and for caring for its own poor (Schneider: 4; Fensterstock: 15). Throughout the years, particularly Acts passed in 1691, 1701, and 1703, accounted the costs for and indignant towards the indigent were reflected in colonial legislation. Fines were given to the poor in violation of laws. Further, “in many communities the pauper was made to wear a brightly colored badge on his sleeve inscribed with a large letter ‘P’ (Schneider: 4).” Yet counties, cities, towns, and parish precincts were legally bound to provide for the poor (Fernow 1883, p. 253; Fensterstock 1941, 16-18) In fact, an Act passed in 1702—that is, “An Act for the better Support and Maintenance of the Poor in the City of New York for the future”—established a county governing body of supervisors who oversaw poor persons.

¹⁰In 1824, the State established a system of almshouses rendered mandatory and voluntary in certain districts. Removal of the destitute was no longer permitted and the county now assumed full responsibility for them: “The vexatious, expensive, and frequently inhuman practice of compulsory removals of a pauper from one town to another, or from a county into which he has been fraudulently brought, which yet prevails, is proposed to be abolished (Fensterstock: 23).” These revisions demonstrated greater generosity to paupers. Funded by estate taxes and fines, the 1827 revisions gave further protections for the poor by mandating indoor relief. Yet, this changed in 1856. Investigative reports spearheaded by the NYS Legislature found that the almshouses lacked proper supervision. This led to the suggested termination of indoor relief. The Legislature recommended “the removal of children from poorhouses and their placement in orphanages and similar institutions for special care, the removal of insane paupers from almshouses and the building of state hospitals for their reception, [a]nd [i]mposing legal requirements for the better regulation of almshouses (Fensterstock: 25-26).”

city and town-financed veteran relief (Birdseye 1890 and 1896).¹¹ Later on, the Board was authorized as a constitutional body in 1894, setting the ground for state intervention in social welfare.¹² For example, starting in Massachusetts and “[s]preading to eleven states by 1880, to thirty-six by 1913, and to forty-five by 1929,” states established state boards of charities that engaged in advising, “inspecting, licensing, prescribing rules and regulations, and managing” charities (Radomski 1947, p. 12).¹³ However, during the Depression, public and private agencies came together to form a patchwork to address unemployment and poverty.

In New York City (NYC), a citizen’s emergency employment committee, the Prosser Committee, formed to finance a program of relief for New York City residents, raising \$8 million. In the same vein, the Harvey D. Gibson Committee raised \$18 million to support the relief activities of private welfare agencies. Private charities funded soup kitchens, milk distribution centers, lodging for the homeless, and eventually “made work.” Still, by the end of winter and into the summer months, municipalities were nearing bankruptcy and the private sector was almost drained of its resources. Making matters worse, it was “estimated that during the winter of 1931-32, the municipal authorities would have to provide no less than \$20 million for emergency work and wages (Bellush 1955, p. 139).” This meant that either the state or federal government would have to intervene. But the idea that government should serve any role in relief or social necessities was controversial. Still, beyond the conception that the State bears a moral obligation to care for the needy, FDR recognized that the public works programs at the time were not financially stable. Financed through municipal government’s issuing of notes and bonds, these programs absorbed future payments of real estate taxes and heavily relied on philanthropy. The problem here was that, just as future tax receipts were uncertain, private welfare agencies and philanthropists were at insolvency. At the same time, President Hoover in Washington was doing little to address the problem.

Gov. Roosevelt reached the conclusion that in the midst of federal inaction, decisive

¹¹Throughout the 1870s appropriations and supply bills were authorized by the Legislature to aid the needy—for example, between 1872 and 1874 alone, over about \$350,000 was appropriated to insane asylums (Senate 1872, Chapters 541, 733; 1873, Chapters 643, 700, 830; 1874, Chapters 323 and 398).

¹²These developments are largely attributed to the creation of the 1909 State Charities Law of the same year.

¹³The relief field is characterized by the source of financial and/or administrative control, where the assistance is attributed with respect to participating institutions, the differentiation or lack of differentiation among recipients, and whether the aid was provided as an exchange for labor (Feder 1936, p. 320). The classifications are as follows: the basis of whether the source of support was from a public institution (public), a private institution (private), or both (public-private); if the relief was provided inside an institution (indoor), outside of one (outdoor), or both (indoor-outdoor); if the assistance recipients were undifferentiated (general), differentiated (categorical), or both (general-categorical); and if there was the expectation of labor in exchange for assistance (direct), if there wasn’t (indirect), or both (direct-indirect).

solutions to the unemployment problem could not be reached adequately through individual state action (Bellush 1955: p. 138). Instead, addressing these economic issues would require multilateral state action—more precisely, uniform social-welfare legislation enacted on a regional basis (Bellush 1955: p. 138). For this reason, Roosevelt hosted a conference on the assuagement of unemployment in the northeastern industrial states on January 23, 1931 in Albany. He invited the governors of Massachusetts, Pennsylvania, Connecticut, New Jersey, Rhode Island, and Ohio. His hope was that this conference would bring together these states to conduct studies of preexisting and proposed methods of relief occurring in the US and abroad. This was in anticipation of developing a policy proposal each state at the conference could adopt to “promote a far-sighted policy of prevention and relief, [to] be forwarded to the legislature for action” (Bellush 1955: p. 138).

Moreover, it appeared likely that the upcoming winter, 1931-32, would double the amount of the unemployed, requiring at least \$20 million of relief to address the problem. Roosevelt announced and planned a special session of the 154th NYS Legislature. This is because delaying action until the regular session in 1932 would leave residents to suffer half of the winter with no action taken on the part of the State to address the unemployment issue. On August 21, 1931, in his speech on the duty of state government in Ellenville, New York, Roosevelt expressed that additional forms of relief were an imperative for his constituents: “there is something that is immediate,” he said, “and that is taking care of the thousands and hundreds of thousands within our State who this year, and especially, I fear, this coming winter, are going to be in want or distress of some kind or another.”¹⁴ Continuing, he stated “We got through the last winter... The government, county, city, and town, did their best to create public work... otherwise [p]eople would have been out of food and shelter, and then individual citizens throughout the state did their work magnificently in contributing to the various forms of charities.” Yet, “unfortunately the surveys show that this coming winter, those forms of assistance are going to be more sorely pressed than they were, even last year.” This news was pressing because these communities had reached their financial limits. In his words: “a great many of our communities have come to the point where they cannot borrow any more money.” Indeed, “they are up to the debt limit... a great many people who gave to private relief funds are unable to give as much now as they did then.” For this reason, Roosevelt decided that at the coming session, he would “ask the Legislature to take up the matter of state assistance for the relief of people.” In so doing, he hoped to help all New

¹⁴For him, “one of these duties of the state is that of caring for those of its citizens who find themselves the victims of such adverse circumstances as make them unable to obtain even the necessities for mere existence without the aid of others (FDR, 1931a).” Clarifying later on, he stated “while we cannot go... to the point of saying that government owes every man and every family a job, we can go to the point of saying that government cannot allow any of its citizens to starve (FDR, 1931b)! ”

Yorkers and to set a precedent that other states, and eventually the country would follow: “I hope that as these difficult years go on that this period in our history will be looked back to as a period when the State of New York lead the United States in sane, useful experimental work. That is what civilization is for, that is what our form of government is for (FDR 1931a: p. 9).” FDR planned to unveil his vision for this “experimental work.”

2.5 The political process

A week later, on August 28, 1931, three days into the special legislative session, Gov. Roosevelt laid out his vision for the State’s role in the recovery. First he explained that, “the ‘state’ or ‘the government’ [w]as but the machinery through which such mutual aid and protection is achieved (FDR 1931b).” For him, the “government is not the master but the creature of the people. The duty of the state towards the citizens is the duty of the servant to its master (*ibid*: 23).” He continued, “I assert that modern society, acting through its governments, owes the definite obligation to prevent the starvation of the dire want of any of its fellow-men and women who try to maintain themselves but cannot (*ibid*: 24).” Seeing as “the economic depression of the last two years has created social conditions resulting in great physical suffering on the part of many hundreds of thousands of men, women and children” and that “the number of citizens who this coming winter will be in need, so far as it is possible to estimate, be nearly, if not quite, twice as many as during the winter of 1930-31... the State must itself make available at once a large sum on public moneys to provide work for its residents this winter where useful public work can be found (*ibid*: 25-26).”

Roosevelt recommended the creation of a temporary agency, the Temporary Emergency Relief Administration (TERA), to address this issue.¹⁵ The TERA would be funded by a \$20 million appropriation that would be disbursed among municipalities and counties within the state. The size of the apportionments would be determined by the number of families unemployed, requiring assistance, within the areas, as well as local efforts to raise funds to address the problem. The appropriation of funds would be derived from current revenues and increases on income taxes. The apportioned funds would be disbursed for local employment purposes and in-kind assistance under the discretion of a local welfare officer. He/she/they would focus on public works useful to citizens and would provide the necessary food, clothing, shelter and warmth to all who needed it. Under the discretion of this temporary agency, cities and counties were commissioned to borrow additional funds for public employment on

¹⁵In addition to this agency, Gov. Roosevelt called for legislation providing a five-day work week for all future contracts for labor on state and municipal public works projects, and the provision of state moneys to finance soldier bonus payments to WWI veterans under Chapter 19 of the Laws of 1924 of the NYS Legislature (FDR, 1931b: pp.25-28).

public works projects so long as the obligations incurred were not in excess of a total of three years.

Less than a month after outlining his recommendations, Roosevelt pursued concrete action on unemployment relief. The extraordinary session lasted from 12pm on August 25, 1931-Sept, 20, 1931 and was heavily covered by the *New York Times*, with headlines reading, “Roosevelt decides on relief heads” and “Governor considers \$25,000,000 relief for unemployment (*New York Times*, 1931a; 1931b). Though speculation was intense—for example, anticipation that the Legislature would fund unemployment relief appropriations through special taxes on cigarettes and cosmetics, political cooperation was fleeting. To avoid any partisanship or further Republican obstructionism, Roosevelt “offered to the Republican leaders in the legislature the privilege of introducing bills under their own names carrying out [h]is program, so that any personal or partisan advantage in its adoption might be theirs (FDR, 1931c).”

Republicans narrowly dominated the Senate and sought to pass a whitewashed version of Roosevelt’s proposal. The Republican Wicks Bill, championed by the Senate Chairman of Public Health Arthur H. Wicks, Senator George R. Fearon of the 38th District and Speaker of the Assembly, Joseph A. McGinnies, placed the central body of the TERA within the Department of Social Welfare and provided flat-rate reimbursements to each locality. Minority Leader of the State Senate, John J. Dunnigan of the 23rd District, introduced the Dunnigan Act, legislation nearly identical to what Roosevelt called for. The two forms of the TERA legislation were at odds with one another over independence of the temporary agency, the investment of good faith into city and county welfare commissioners, and the sources of funding. Though proposed income tax numbers are worlds apart, some indicating as much as a 50 percent increase and others an increase of less than one percent, we present the increases as displayed by the *New York Times* coverage of his speech August 28, 1931. The proposed income tax increases would impact individuals who earned \$3,000+ annually, and families making at least \$5,000 per year. The proposed statewide tax increases were minimal, amounting to less than 1 percent across income brackets (see Table 3.1). Single persons, for example, faced payments of 0.08%, 0.2%, 0.25%, 0.375%, 0.625%, 0.85%, and about 0.001 percent of their income, for those earning \$3,000-\$100,000 per year.

The Republicans proposed that, should the funds be determined sufficient, the State should finance relief assistance strictly through short-term loans. Otherwise, if the need for tax increases remained, they argued that adoption of such a measure be delayed by one year (Bellush 1955: 139-42). Roosevelt threatened to veto the Wicks Act, retorting: “This bill misses entirely the broad spirit of emergency relief. The program which I had outlined would provide an independent, enthusiastic, and flexible administration, which would actually relieve by providing state moneys where most needed as a supplement to local resources (FDR

Table 2.1: Proposed income tax increases under the TERA

Net income	Single persons	Married persons and heads of families*
\$2,500	\$0.00	\$0.00
3,000	2.50	.00
4,000	7.50	.00
5,000	12.50	1.00
10,000	37.50	26.00
20,000	125.00	102.00
50,000	425.00	402.00
100,000	1,162.00	1,128.00

* Under this plan, Heads of Families were defined as adults with two children or other dependents in their household.

Source: New York Times, 1931a; digitized by author.

1931c).” He argued that the Republican’s bill “[p]rovided that the richer the locality, the more state money it will get, and that the poorer the locality, the less state money it will get.” Further, the Governor implied that his immediate recourse would be to veto the bill and appeal to the people of the Empire State. This meant that he would assign culpability of prolonged unemployment onto the Republicans. This was together with additional costs to host a secondary special session of the legislature to once again attempt to address the problem. With elections around the corner, the Republicans had few options other than to compromise. If they called his bluff, for example, McGinnies’ re-election for Speaker of the Assembly could be less straightforward than he hoped.¹⁶ Removing the Department of Social Welfare provision added by the Wicks Act and keeping the procedural features proposed by the Dunnigan Bill, the new Wicks Act “Emergency Relief Act,” Chapter 798 of the Laws of 1931, was passed by both houses of the legislature, signed by Gov. Roosevelt, and introduced into law Oct. 1, 1931, active by November 1, 1931.¹⁷ Roosevelt explained that the Act was “to do two things: the first was to recognize the obligation of the State, as representative of the Sovereign, to see to it that nobody starved... the second was to....supplement communities which are unable to bear the entire burden (FDR 1931d; Lundberg 1932).”

2.6 The legal framework: The final bill

Section 1 of the Wicks Act declared a state of emergency and stated that the conditions of the Great Depression warranted public relief aid by the state, and all the counties, cities,

¹⁶The 51 Senators served two-year terms and the 150 Members of the Assembly served one-year terms.

¹⁷That is, “An Act to relieve the people of the state from the hardships and suffering caused by unemployment, creating and organizing for such purpose a temporary emergency relief administration, prescribing its powers and duties and marking an appropriation for its work (NYS Legislature, 1931).”

and towns within it. The emergency was declared on the basis of the insurance of public health and safety. The catastrophe of the Great Depression was claimed as a matter of public concern. For this reason, the legislature posited that “the correction thereof to be a state, county, city and town purpose, the consummation of which requires, as a necessary incident, the furnishing of public aid to individuals (NYS Legislature 1931, Section 1).”

Section 5 established the TERA’s right to gain access to the expert advice offered by the Departments of Social Welfare, Taxes, Public Works, Public Health and any others Departments of its choosing. Perhaps more importantly, the TERA was given the freedom to collaborate with “any existing national, state, or local commissions or agencies (NYS Legislature 1931, Section 4 and 5).”

Sections 6,7 and 9 outlined the role of welfare districts and municipal corporations in the distribution of public assistance.¹⁸ Under Section 6 “each city of the state and the territory of each county beyond the limits of cities [w]as hereby constituted a separate welfare district, which are hereby designated as city and county welfare districts respectively.” In these welfare districts, Section 7 gave Mayors, Chief Administrative Officers, or governing boards of a given city or county the power to organize a emergency bureau, which would be responsible for administrating work relief. Section 9 gave municipal corporations the ability to furnish work relief and, subject to approval, home relief. Supplementary legislation and amendments to the Wicks Act were instrumental in redefining NYS’ conception of relief as well as funding practices and the role of local governments.

For example, Chapter 566 was an act that authorized the creation of a state debt of \$30 million to provide additional funding for relief spending from Nov. 15, 1932-January 1, 1934. Section 1 of the Act enabled the legislature to create other agencies to administer and distribute temporary emergency relief. Section 2 authorized the state comptroller to issue and sell state bonds up to the designated \$30 million. These “emergency unemployment relief bonds” were up to 5 percent interest, higher than the prevailing interest rate in NYC, payable semi-annually in NYC (NYS TERA 1932c: p. 48). The bonds were sold in lots after ten consecutive days of advertisements in at least two newspapers.¹⁹ The proceeds from the bonds were paid to the state treasury and were made available only for the work or objects authorized with the Act. Section 3 authorized the comptroller to borrow money needed to pay the legal demands authorized by appropriations, in anticipation of the receipt of proceeds from bonds (NYS TERA 1932c: p. 49).

¹⁸According to the Act, a “public welfare district” was one of the districts eligible for aid as created by the bill. A “local bureau” refers to the institutions of temporary work created by the Act within cities and counties. A municipal corporation was defined as any participating county or city in NYS.

¹⁹Two caveats apply here: the ten consecutive days did not include Sundays, and one newspaper advertisement had to be in Albany and the other in NYC.

Chapter 567 amended the original Wicks Act, redefining central terms and augmented past details related to funding. Section 2 broadened the definition of home relief to include household supplies, medical supplies and medical attendance provided at the expense of the town or municipal corporation. Crucially, Section 2 also extended the emergency period, from Nov. 1, 1931-Nov. 15, 1932. Section 9 established the freedom for municipal corporations and towns, notwithstanding legal limitations imposed by local charters and provisions, may furnish home or work relief (NYS TERA 1932c: p. 51). This section also made a modest adjustment to the residency requirement. Previously, eligibility for benefits under the Wicks Act required that, therewith insufficiency of financial situation, that applicants were citizens of NYS for at least two years prior to the creation of the legislation. The amendment changed the requirement to two years prior to the date application for aid. Section 10 allowed local level legislatures appropriate or otherwise raise money for additional emergency relief funds through interest-bearing notes, bonds or other obligations, insofar as the obligations incurred were for a period of up to five years and did not exceed the statutory debt limit. Sections 16 and 17 authorized the state to issue direct grants to municipal corporations and towns, and to accept private contributions made to home/work relief funds, respectively. Just as well, Section 16 authorized that work relief be reimbursable by up to 40 percent thereof from NYS funds.²⁰ Section 35 expanded the scope of the TERA to include each municipality, town and county. This meant that under the amendment, municipal corporations were all covered by the TERA, requiring them to manually opt out to not receive relief assistance.

²⁰Three years into the program, in April 1934, the TERA increased reimbursements of all approved expenditures up to 75 percent (NYS TERA 1934, p. 12).

Chapter 3

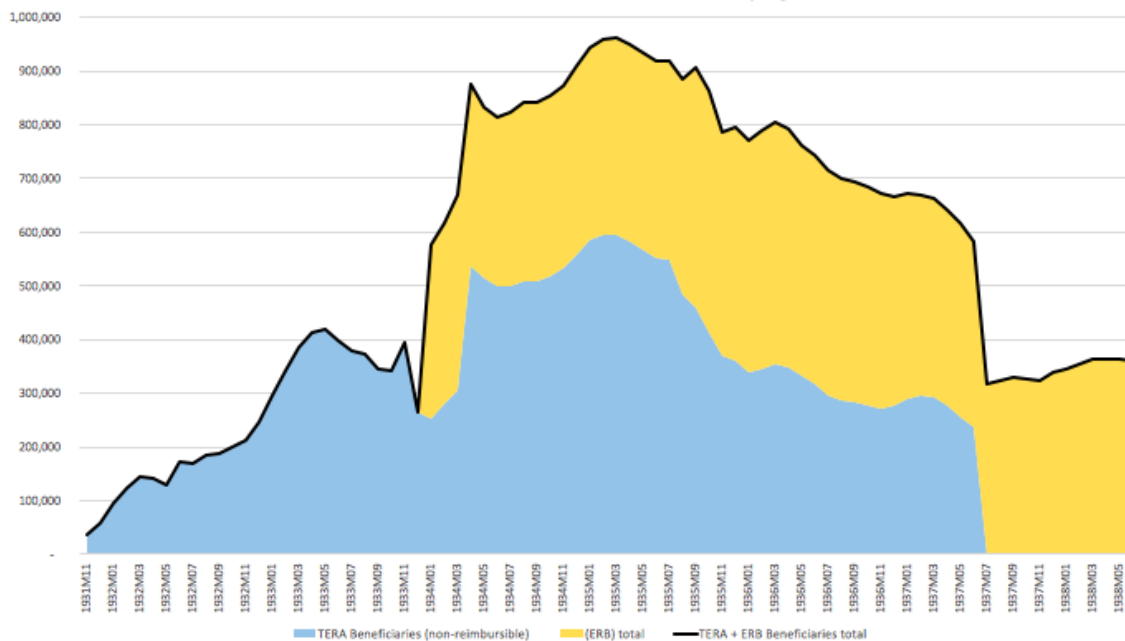
Costs and qualitative achievements

The average TERA beneficiary was eligible to receive wage-employment issued by their public welfare bureau, in-kind assistance, and specialized benefits, from medical and nursing care, to health insurance advising. This chapter details the experience of an average TERA beneficiary, with an emphasis on what the program offered. Next, we turn to the process of funding public projects. In particular, we focus on how municipal corporations pursued projects, the bureaucratic problems of the system, and the types of projects undertaken. Section 3.1 addresses the beneficiary's perspective. Sections 3.2 and 3.3 cover the details of work and home relief, respectively. Section 3.4 provides an overview of public projects and funding.

3.1 Beneficiary's perspective

In their joint operation, The TERA and NYC ERB supported, at one point, nearly one million people in a given month (NYS TERA 1937; see author's calculations). Figure 3.1 displays the number of TERA and NYC ERB beneficiaries for the period 1931M11-1937M06. In the TERA's first year (November 1931-November 1932), the average total number of beneficiaries was 142,564. Between those months, the number of beneficiaries increased by 458 percent, or 174,526. Before the NYC ERB was established, the TERA reached a peak of 418,334 total beneficiaries August 1933. The establishment of the NYC ERB in June 1934 followed a spike of the ERB work and home relief caseloads the month prior. The maximum number of beneficiaries was slightly under one million, 960,756, in March 1935. At that time, 271,163 and 95,674 ERB beneficiaries received home and work relief, respectively. The total caseload trend for both programs are nearly identical: after the sudden rise in beneficiaries in the summer of 1934, total cases peak for both programs in spring 1935, and gradually decrease until the TERA's dissolution in June 1937. In general, home relief was more widely

Figure 3.1: Breakdown of NYC ERB and TERA beneficiaries, 1931-1938



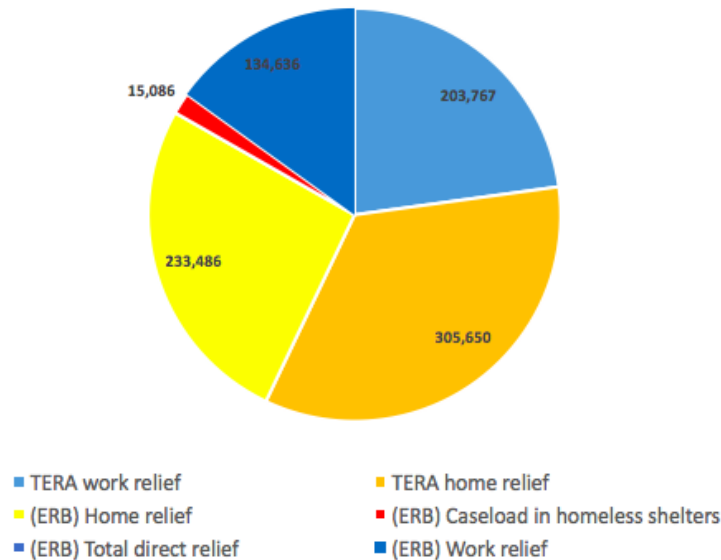
Source: Author’s calculations—NYS TERA 1937; NYC ERB 1938

used than work relief. Afterwards, the NYC ERB’s amount of total beneficiaries remains steady through its final year of operation. Figure 3.2 presents the relative shares of caseload, broken down by program and relief type. The TERA and ERB supported a similar amount of recipients throughout their operations. In 1935, the difference between both programs was about 70,000 recipients across work and home relief. The NYC ERB accounted for “specific” cases of home and work relief assistance (i.e. caseload in homeless shelters) separately.

TERA outlays ranged from a minimum of \$1,102,316 in November 1931 to a maximum of \$31,167,287 in January 1935. The fluctuations are likely due to the frequent changes in bureaucracy. As FDR instituted additional programs throughout his Presidency, the TERA received more funding—the establishment of the WPA in 1935 is an excellent example of this. Despite the work relief expenditure trend declining during winter months and rising as temperatures increase, the addition of the WPA led to a peak and plateau of both relief divisions’ expenditures. Beneficiaries received work relief assistance, allowing them to maintain old or develop new skills while earning a wage and contributing to their respective communities. Home or “direct” relief recipients were eligible for comprehensive in-kind assistance, as well as medical and nursing care, insurance advising, subsistence farming, and rent/mortgage payments and relocation aid.

The application process was straightforward. To be eligible, applicants need only demon-

Figure 3.2: Breakdown of TERA and NYC ERB beneficiaries by type of relief, 1935



Source: NYS TERA 1937; NYC ERB 1938; digitized by author.

strate financial need and meet the two year NYS residency requirement.¹ Applicants submitted an official form requesting relief assistance, and were registered in a central index established by the area's Commissioner of public welfare. From there, the city or county welfare bureau would perform investigations—either conducted by the Commissioner or by a welfare officer under the general direction of the Commissioner—into each case to determine eligibility (NYS Legislature 1931: Sec. 13; NYS TERA 1932a: p. 11-12). The minimum investigation included²: investigation of the applicants' home; verification of meeting TERA residency requirements if not adjusted by the municipality; inquiry into all of the family's financial resources—bank accounts, insurance, property, etc; determination of the family, relatives, friends, churches, and other local organization's ability and agreement to assist; and an interview with a minimum of one former employer.³

Once approved, any persons with more than \$500 of insurance had to convert the excess

¹The law specified that the residency requirement meant being legal residents of NYS prior to the enactment date of the legislation (Nov. 1, 1931). However, the residency requirement was not static. In 1932, it was changed to “two years prior to the date of application for aid under” the Wicks Act (Radomski 1947: p. 89; Wicks Act, Section 9). At the same time, there was flexibility for municipal corporations to adjust requirements. The NYC ERB, for example, had a residency requirement in NYC of only one year (Stryker 1935: p. 22).

²Which body performed these investigations was dependent on if the location of the particular case was in a city who assumed the charge for the respective relief, or if it was a county.

³Though the Administration described the investigations as thorough, it is important to note that roughly 15 percent of households receiving funds were ineligible, and the relief provided to beneficiaries was insufficient (see Stryker 1935: p. 30-33, 37-38, 41).

into cash and spend it all before receiving relief aid (Stryker 1935: p. 30).⁴ For home relief, throughout the duration of a beneficiary's time receiving aid, the welfare bureau's field workers would visit their home at least once a month. This frequent contact served as a way to prevent excessive paperwork: the regular visits would inform the welfare bureau if it was necessary for the family to continue to receive relief, meaning that needy families need not reapply should they still require need.⁵ Surprisingly, one need not be unemployed to be eligible for work relief. Instead, investigation into the matter need only prove that the person's "employment is inadequate to provide for the necessities of life (NYS Legislature 1931: Sec. 2)."

3.2 Work relief

Public project workers were under force account, not contracted workers. This employment arrangement had it so that workers could not form unions. As stated in an official TERA report, "Relief employment is a form of public welfare aid and not the normal accepted form of employer-employee relationship... There should be no matter of 'demands' because they are not properly in a position fairly or reasonably to make demands (NYS TERA 1934b: p. 110-11)." However, as of an amendment made to the Emergency Relief Act in 1934, relief workers were eligible for disability allowances—the regular home relief arrangements, medical care as needed, etc—in the instance of work-related injuries through Workmen's Compensation Laws as a charge to the municipality (Radomski 1947: p. 92, 102, 132; 211-13; NYS TERA 1934b: p. 95-97, 142-44).⁶

The life of the average relief worker under the TERA consisted of a full time work week, fixed wage rates adjusted to be comparable with the prevailing wages within the worker's locality, administrative complications, and stigma. Through the TERA's operation, workers were entitled to twenty-four hours of work per week on manual labor projects. Yet, after a 1934 FERA ruling, the maximum hours work extended to thirty hours per week, and up to

⁴Should an individual be found guilty of work relief fraud—that is, obtaining funds without working, misrepresentation of oneself to the Administration to receive work, and/or selling one's credentials—the worker was to receive no issuance of work relief wages (NYS TERA 1932c: p. 72).

⁵Welfare bureau local field workers were limited to working on a maximum of 100 cases at a time during the emergency period.

⁶Under the TERA's Works Division, there were 97,449 accidents by mid-1935, about forty of which resulted in death.

In the case of death or permanent disability, the TERA Disability Claims Division determined an amount of cash allowance, up to \$3,500 per case, to issue to the person or their family (Radomski 1947: p. 212). Following the issuance the municipal corporation was legally absolved of any liabilities relating to the damages incurred by relief workers. This saved

128 hours per month (NYS TERA 1934, p. 22-23).⁷ Workers received a fixed daily or hourly wage that varied throughout the state. This fixed wage rate was designed to be comparable to the prevailing rates received for similar projects within the workers' localities (NYS TERA 1934, p. 9).⁸

With so many active, overlapping programs occurring at once, administrative complications were bound to happen. For example, Civil Works Administration (CWA) was a double-edged sword. On one hand, the program's promise of higher wages and more substantive work projects attracted additional workers to the relief rolls. In this sense, the program improved the prospect of supplying support to the needy. Under the program, based on size of population and total amount of cases, NYS was assigned 396,000 CWA jobs. CWA's integration into the state relief program arena imposed a bottleneck on payrolls. The work relief administered by the federal program created a crowding the emergency labor force. Workers clamored towards federal work relief in anticipation of higher wages and more substantive public projects. While the CWA did attract more workers to the relief rolls, it simultaneously led to pay lags: at times, workers did not receive pay for weeks at a time. In fact, a payroll bottleneck occurring towards the end of 1933 resulted in a "golden flood" by December of the same year. Once the bottleneck broke, workers apparently received their missed payments in a lump-sum just before Christmas.

The CWA's abrupt dissolution complicated matters further by imposing a transfer of duties. The federal government passed on the obligation of administering work relief to the local relief bureaus. It seems that this shift of paradigm created a barrier to work relief. For example, within its first month the total relief caseload was 321,333—about 42 percent of the total caseload was direct relief and about 58 percent was work relief. This trend reversed following the CWA's termination by the end of March that year. Between January and March, work relief was the primary recourse to unemployment, leading home relief by roughly 13 percent. Yet, from April on, home relief assistance was more common, leading work relief by about 29 percent.

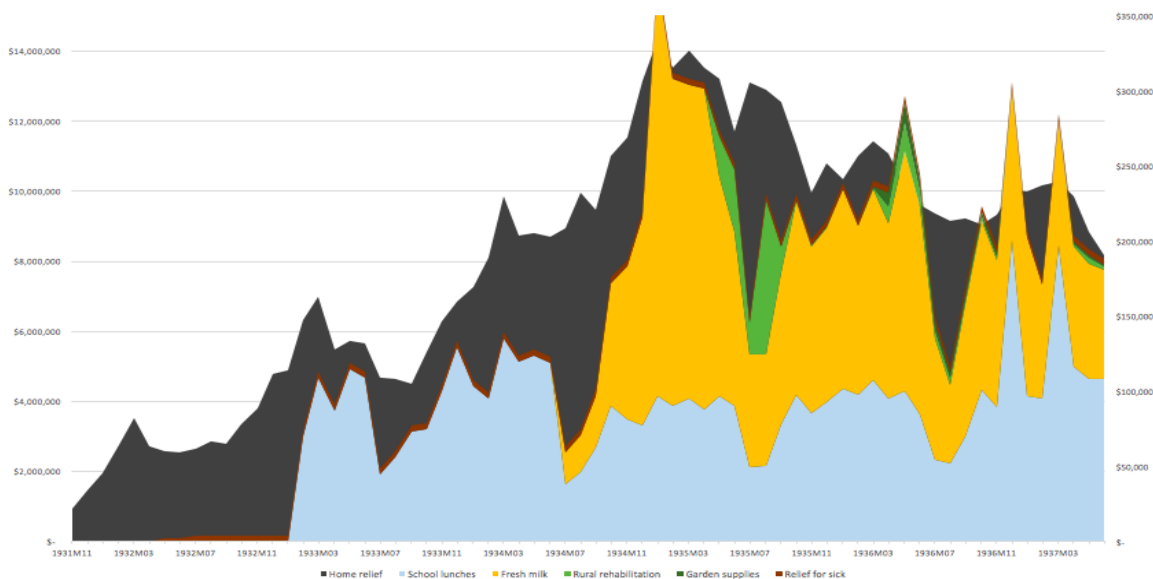
Despite the ubiquity of home relief aid, the stigma of "government handouts" precluded eligible persons from applying. That is, though the need for relief was present and the resources were available, some people simply did not want home relief of any sort. In other words, not every unemployed employable received assistance.⁹ Instead, they wanted to work.

⁷According to a 1934 TERA report, the ruling "[d]id not affect the requirement that hours of employment must be controlled so that earnings will conform to the budget deficit (NYS TERA 1934, p. 23).

⁸Section 17 of the Relief Law states that "the payment to any unemployed person of any part of such money in the form of a dole or any other form that for wages is hereby prohibited (NYS Legislature 1931: Sec. 17; NYS TERA 1932c: p. 138-39).

⁹This suggests that the reported caseload trends are not an accurate measure of unemployment. Likewise, those numbers do not accurately reflect what the actual people were experiencing.

Figure 3.3: Total direct relief, disaggregated



Source: Author’s calculations—NYS TERA 1937; digitized by author.

Drawing from personal assets—owned property, insurance, and savings—some unemployed workers insisted on self-reliance through the Great Depression (NYC ERB: p. 17). However, the reality was that these personal resources were finite; as time progressed, resources declined. With few to no employment opportunities available, the demand for relief was still present. Though the creation of the WPA in 1935 influenced many to apply for work relief through the federal program, it too posed barriers. It increased total caseloads: work relief was the preferred assistance for many people, and certification for home relief certification was a prerequisite to WPA employment (NYC ERB: p. 18). That meant that the WPA would recruit workers from the home relief rolls. The problem with this was turbulence: “when the WPA [l]aid off people, the direct (home) relief load climbed; when WPA hired people, the direct relief load contracted (NYC ERB: p. 16).”

3.3 Home relief

The TERA’s home relief philosophy was “to provide adequately for those unable to maintain themselves”—that is, for the state to provide assistance requisite for the sustained health and welfare of its citizens—rather than merely “tide over families” in their instance of need (NYS TERA 1935b: p. 1-8). In general, the amount of relief distributed to applicants was meant to “be sufficient to provide the estimated weekly needs insofar as the family is unable to do so from its own resources (NYS TERA 1932a: p. 10).” The amount of funds was chiefly determined by an estimate of weekly needs of the applicant and their family with considera-

tion of allowances needed for food, shelter, clothing, medical care, and all other necessities. As well as the weekly income of the entire family, plus personal resources—for example, produce provided by personal farm or gardens. Home relief was funded by a patchwork of federal, state, and local government bonds and appropriations, and was administered by the local public welfare bureaus.¹⁰ It constituted in-kind assistance—food, shelter, clothing, household needs, light, fuel, medicine, medical supplies, and medical care—and cash payments (NYS TERA, 1935b: p. 7). Figure 3.3 presents outlays for these services, including others explained later in this section—note that total direct relief is a blanket term for home relief-related charges.¹¹

Beginning May 21, 1934, NYC instituted cash home relief following an amendment to the Wicks Act, Chapter 65 of the Laws of 1934, passed by the NYS Legislature March 15, 1935. The amendment redefined home relief as defined in paragraph 8 of the Wicks Act. The amendment stated that: “For purposes of and in order to provide wholly or in part home relief as herein defined, until February 15, 1935, money may be given in cash if and where approved by and under rules and regulations made and conditions specified by the Administration (NYS TERA 1932c: p. 12-14).” In order for the local bureaus to receive authorization to disburse cash payments to beneficiaries, they required a sufficient number of staff, relative to locality’s caseload, a proper disbursing and accounting system complete with qualified employees handling the money, welfare field workers handling below the legal maximum cases,¹² and scrupulous supervision of investigation staff. Although this medium of home relief was understood as necessary for mothers and the elderly, it gradually replaced in-kind assistance for most average families by the end of 1935 (NYS TERA, 1935b: p. 7).

The TERA recommended that, to prevent unsuitable use of relief funds, localities prescribe cash for specified items, rather than for anything and everything. If followed, this precautionary measure would have restricted the purchase of items outside of relief categories. Usually this was done by making the bureau a part of the transaction. For example,

¹⁰Municipalities would submit a claim to the State Administration for reimbursement of relief funds up to 40 percent.

The TERA was legally allowed to deny approval of claims issued by municipal corporations if the Administration has reason to believe that the locality (1) partially or completely withheld relief assistance from persons due to race, color, ethnicity, non-citizenship, religion, or political connections/activities; (2) did not comply with the rules and regulations established by the TERA; (3) made little effort to adequately address the needs of its population (NYS TERA 1934a: p. 8).

¹¹We calculate direct relief as the sum of the home relief, care of homeless, school lunches, fresh milk, garden supplies, relief to sick and disabled veterans and rural rehabilitation variables.

¹²The purpose of this was to allow the field worker enough time to gain sufficient knowledge of each of their clients’ relief case. In doing so, the worker would be able to determine if the clients were able to efficiently use the cash disbursements (NYS TERA 1932c: p. 13). This is because the chief caveat of cash disbursements to certified home relief beneficiaries was if demonstrated financial mismanagement. In which case, cash was not given, but store order forms were issued.

a local bureau could decide to have milk delivered to children's homes in specified amounts as a way to ensure that cash for milk was not being used on different items. At the same time, the TERA recommended that all items should be available for purchase using relief cash be selected families. The basic idea was to divide the total caseload between families receiving cash benefits and for those who are not. From there, local officials were required to review each case, and each case then was subject to review by the nearest local representative of the TERA. The decision to give or withhold the benefit was based on both the case record of the family and a specific reason stated by the reviewer why or why not the family should receive it. (NYS TERA 1932c: p. 13-14).

To receive the cash benefit, beneficiaries completed a separate application signed by their local Commissioner of public welfare and the Mayor of their city, or Chairman of their county's Board of Supervisors. If approved, the basis for a claim for reimbursement was an authorized voucher signed by the beneficiary. Afterwards, the Commissioner would authorize the disbursement and distribute it as a check payable to the client.

Specialized needs were granted to beneficiaries at the discretion of their respective public welfare department and/or welfare officers.¹³ This means that insofar as legitimate need was demonstrated, beneficiaries were eligible for medical and nursing care if they were chronically ill; insurance advising, carfare for clinic visits, employment, and other necessary transportation, and lunch money for working family members and school-aged children.

Shelter allowance, for example, took the form of "either rental or allowable payment on a home" with respect to anticipated fixed and variable costs including interest on mortgage, water, fire insurance, taxes, and any other items whose missed or non-payments could result in eviction from the domicile (NYS TERA 1935b: pp.13). The objective was to aid families in continuing existing rent and mortgage payments, upholding dwellings' health and safety conditions, removing families from potentially health-endangering living environments, and relocation.¹⁴

Clothing budgets took into consideration, the quality, quantity, upkeep, and frequency of replacement for garments. The system of clothing distribution varied across localities. Some communities, for example, met community clothing needs through providing gifts and engaging in sewing projects. Another way the need for clothing was met was through a "cumulative clothing allowance." That is, a compounding regular budget for clothing. In other words, rather than granting a week-to-week budget alone for clothing, it was considered

¹³The calculation of total home (direct) relief expenditures excluded relief for the elderly, allowances for mothers to be expended for the care of their children, and generalized institutional care including hospital, and was a financial obligation assigned to municipal corporations (NYS TERA 1934a: p. 7).

¹⁴One explicit aim was to maintain the living standard that the families were accustomed to prior to the Depression.

Figure 3.4: TERA-NYC ERB medical and nursing care, house call



Source: New York City (1938). "Unemployment relief in New York City: Final report of the Emergency Relief Bureau of the City of New York, June 6, 1934-December 31, 1937." p. 22 - *Keystone View Co.*

Table 3.1: Standard food allowance guide, abbreviated

Individuals	Make-up of the family	Allowance Category
1 person	-	No. I
2 persons	All families of 2	No. I
3 persons	(a) 1 woman, 2 children under 6 years;	No. I
	(b) All other families	No. II
4 persons	(a) Man, woman, 2 children under 6 years	No. II
	(b) Woman, 3 children under 12 years	No. II
	(c) All other families of 4	No. III

Source: NYS TERA 1932b; digitized by author.

more efficient to allow the allotments to accumulate. From there, when a purchase was authorized, “the family credit thus established was checked against” the new articles (NYS TERA 1935b: p. 14).

Light and fuel too, were given with scrutiny. These expenses were paid for out of a budget separate for food. The basis for the amount of the designated funds was contingent on the previous standard of the clients as well as the quality of the lighting and heating equipment as well as the dimensions of the space they were used in.

The majority of welfare bureaus had a separate division for insurance adjustment. The purpose of this was to assistance clients in using their preexisting assets to maintain their insurance. Accordingly, the division “made available to [b]eneficiaries, in cash, any asset over and above the amount necessary to keep such protection in force (NYS TERA 1935b: p. 15). Under the TERA some bureaus created an allowance for insurance premiums where they pooled local funds. In which case, provision for the payment of premiums was made from a refund settlement. Beneficiaries were limited to whole life insurance—that is, life insurance that accumulates cash value and pays a benefit for the death of the insured client—up to \$300 for minors and \$500 for adults (NYS TERA 1935b: p. 15-16).

The TERA also introduced a subsistence farms and gardening program. Created May 28, 1932, the statewide subsistence gardening system supplemented work and home relief resources by placing relief-certified families onto vacant farms. The 244 families placed between May and October 1932 were given the opportunity to grow food for personal consumption, but were prohibited from profiting from the agriculture. The TERA funded local communities up to 40 percent of total expenditures for this sub-program. Within five months of operation, agricultural advisers reported about 5,591 subsistence gardens total. One district “found that for \$5 spent in seeds and outlay, the family received returns in produce were \$25 (NYS TERA 1932c: p. 185).

The TERA also incurred additional obligations acting as an agent in the distribution of

federally created relief programs—three examples will do here. First, the Federal Surplus Commodities became a separate division of the TERA in October 1933, ultimately distributing 331 million pounds of extra food—ranging from fruit, vegetables, flour, and meats such as smoked pork and fresh veal—to certified beneficiaries through 2,000 stations ran by work relief persons (NYS TERA 1937, p. 49-50). In addition to the \$38.2 million worth of food distributed, the division distributed \$4 million worth of clothing that, in itself, eventually became a federal public works project.

Second, Camp TERA was a rest camp geared toward unemployed women between eighteen to forty years old who demonstrated a need for physical and mental rehabilitation (NYS TERA 1937, p. 51-52). Camp TERA or “Camp Jane Addams” operation from June 1933 to December 1935. Before being transferred to the National Youth Administration (NYA) January 1936, this federally-funded and locally administered program aided 1,616 women, costing an estimated \$0.40 (for 1933-35) per day per person for rehabilitative services, plus necessities—ice, coal, laundry, food and housing, electricity, equipment and transportation, and medical supplies (NYS TERA 1936: p. 21).

Third, the TERA’s Transient Division administered relief on behalf of the federal government from November 1933-March 1936 to those qualified for relief, but failed to meet the two year NY State residency requirement. The State established a network of ten camps accommodating up to 200 transients each throughout the state (NYS TERA 1937, p. 50). Transients received limited benefits—e.g. usually up to \$3 per week. The Division began dwindling in 1935, but began to offer treatment centers, rehabilitation units and reference bureaus to transients. The first extended traditional TERA benefits—work relief, vouchers and direct cash payments, food, housing, medical care—but also provided “consultation on special types of problems” and recreation (NYS TERA 1937, p. 51). The second was targeted job and career counseling, focused on matching transients’ skills and experience to suitable employment opportunities. The third primarily operated as a transferring service. That is, it transferred them to established camps, so that they could receive the services they needed.

The cornerstone of home relief was the provision of food for the needy. As such, the distribution of food took on a complex structure, featuring claimed additions and deductions based off of relief families’ respective compositions. In general, the food allowance provided families with: a minimum of one pint of milk per day for each individual,¹⁵ one half pound of cheese for families of five, at least four pounds of bread and whole grain cooked cereal per person per week, up to seven eggs for children under six weekly,¹⁶ at least half a pound of

¹⁵One quart of milk a day was provided to pregnant and nursing women and children. The type of milk supplied—dried, evaporated, pasteurized, or fresh—was contingent on local market prices.

¹⁶If eggs were inexpensive at a given time, each family member could expect to receive three to four eggs

fat and sugar (or other sweetening agent), one pound of meat for each person over six years old, and a minimum of six pounds of fruits and vegetables per week, of which, three pounds were earmarked for potatoes and cabbage, in addition to at least half a can of dried fruit, peas, beans, and tomatoes (NYS TERA 1932b: p. 5-6).¹⁷ Home relief-certified families also received household supplies—including hand and laundry soaps, matches, toilet paper and matches. Still, there was a rather remarkable effort made at the time to allow for choice. This is because “food habits differ with nationality as as individual preferences. When the same kinds of foods are sent to every family, there is often waste of food the health of the family may be endangered; and frequently unnecessary hardships are thus imposed on a family (NYS TERA 1932b: p. 15).”

Taking into account differing nutritional needs of families due to composition—namely, family size and ages—the TERA created six standard food allowances. Based on the number of individuals in the family and the make-up, these allowance categories determined the amount of money the respective families needed for food.¹⁸ For example, a No. III category families was made up of 4-5 people, ranging from a man, woman, three children but two of whom were under twelve years old, all other families of four, and a woman with four children, where at least three were under twelve years old (NYS TERA 1932b: p. 8). Within these categories, families under eight members were given food orders by the bureau every two weeks, and families with eight or more members were given two food orders every week.

Another important element was the allowances and exceptions assigned to the categories and the types of individuals in the family. To calculate the budget for families, the local public welfare bureaus adjusted the allowances using additions and deductions. For example, an eight-member family would receive a sum of individual adult allowances, but would have 5 percent deducted from their total allowance unless the family was composed of at least three preschool-aged children. Yet, a family of three would receive the standard sum of individual allowances, plus an additional 15 percent. The rationale of this system was purchasing power: larger families were expected to purchase items in bulk.¹⁹ At the same time, various exceptions were made for pregnant women, nursing mothers, and infants. Pregnant women received an extra 25 percent to their individual allowance, and nursing mothers 50

per week.

¹⁷After receiving approval from the Committee on Public Health Relations of the New York Academy of Medicine among other related bodies, physicians were able to recommend patients into “special diet cases.” In which case, adjustments were made to given allowances to permit the purchase of relatively more expensive, but nevertheless necessary food items.

¹⁸For simplicity, the TERA broke down age groups into three categories: six months to six years, six to thirteen years, and thirteen years and over. However, some bureaus did create a fourth category for adolescents, twelve to sixteen years old (NYS TERA 1935b: p. 10).

¹⁹To illustrate this point further, a single adult would receive their individual allowance plus an additional 50 percent added to their food allowance.

Figure 3.5: Weekly food order form, the TERA

Address....., the equivalent of
 Dollars (\$) , in.....

Upon issuance of order,
 recipient must sign below:

(Commissioner or other public welfare officer)

Per.....

(Milk, Bread and Cereals, Vegetables and Fruit are the Most Important Foods)

Quantity	MILK	Price	Amount	Quantity	VEGETABLES AND FRUIT	Price	Amount	Quantity	EGGS, CHEESE, MEAT AND FISH	Price	Amount
<i>Buy at least</i> 7 qts. for each child through the 6th year or from the 10th to 16th year and 3 qts. for each other person Grade B-Bottled (prefer- ably pasteurized) or Evaporated-unsweet- ened				<i>Buy at least</i> 7 lbs. Potatoes 2 cans (2½ g) To- matoes 6 lbs. of these Cabbage Spinach Other greens Onions Carrots Beets Turnips Canned peas Canned spinach Canned corn Apples Bananas Oranges 2 lbs. of dried Beans Peas Lentils Apricots Peaches Prunes Raisins				Cheese: American Cottage Eggs Meat Fish FATS Butter Margarine Lard Cooking oil Peanut butter SWEETS 2 lb. limit Sugar Molasses Syrup MISCELLANEOUS Cocoa Tea ¼ lb. limit Coffee 1 lb. limit Salt Pepper Baking Powder Baking Soda Cinnamon Vinegar			
BREAD AND CEREALS <i>Buy at least</i> 10 lbs. Bread Whole wheat Rye White Cereals Oatmeal Whole wheat cereals Cornmeal Hominy Rice Flour Barley Macaroni Spaghetti Tapioca Cornstarch											

Household Supplies..... Total Cost \$.....

RECEIVED SUPPLIES OR SERVICES AS ABOVE:

.....
 (Recipient)

Order filled by:

Per..... Date.....

Source: NYS TERA 1932b

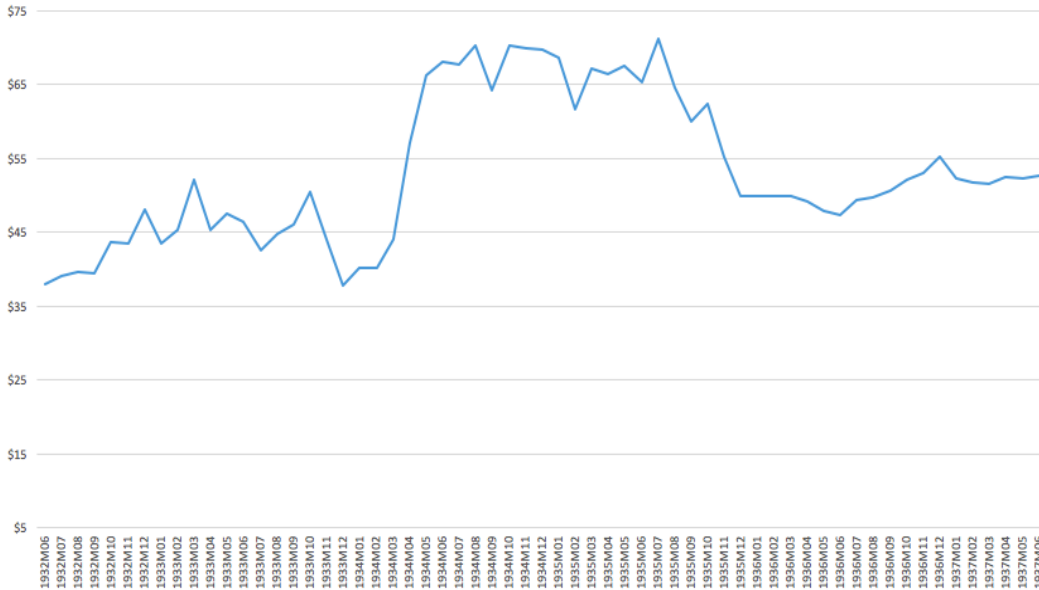
percent. Using the guide, the local Commissioner of Public Welfare would obtain the prices of foods within the jurisdiction of their locality periodically and compute the money needed to complete food orders for each standard category of food allowance. Figure 3.5 presents one of the weekly food order forms. These forms were completed by staff members of the local public welfare bureaus, signed off by the Commissioner, then given to recipients.

3.4 Public Projects and funding

Emergency Work Bureaus and local Emergency Relief Bureaus submitted applications to the TERA to be legally granted the authority to operate work relief projects within their jurisdiction. These project forms required the EWBs and ERBs to furnish all relevant information about the projects. Here, the emphasis was on practicality. The desired projects were to demonstrate a long-lasting value to the municipal corporation and its public, and be noncompetitive with the operations of other public or private entities. Just as well, these projects could not be earmarked for contracted labor nor be a project the municipality historically received an annual appropriation for (NYS TERA, 1932a: p. 8). In other words, relief projects “undertaken by a municipal corporation should be ‘independent of work under a contract or for which an annual appropriation has been made,’ and must be apart from normal governmental enterprises and not such as would have been carried out in due course regardless of an emergency (NYS TERA 1932a: p. 136).”

Municipal corporations directly paid relief workers and would submit claims to the State at regular intervals to receive their partial reimbursement of costs. Figure 3.6 displays real average disbursement per beneficiary. We calculate these disbursements by finding the total disbursement per beneficiary and dividing the nominal value by our “CPI all” variable (see section 5.3). The former is calculated by dividing the TERA’s total expenditures without aid from the CWA by the state total of resident families receiving relief. The latter is our estimation of an aggregate CPI for NYS, which is detailed in section 1.6. From June 1932-1937, the real average disbursement per beneficiary was \$53.18 per month. The time-series is volatile, probably a result from seasonal and bureaucratic factors. Since work relief was determined, in part, by weather, we would expect modest increases in relief during the winter and summer months. Winter because the weather would likely shift more caseloads towards home relief; summer because the weather would likely shift the caseloads towards work relief. The changes in the administration of relief could increase or decrease state funding available to support clients. For example, the CWA was created November 1933 and ended March 1934. During its short period of observations, real disbursements per beneficiary averaged \$41.28. That is \$5.24 less than the average real disbursement the year before the CWA’s establishment during the same five month period (November 1932-March 1933). Real disbursements were at their highest between April 1934 and November 1935, where the average was \$65.69. This dramatic increase could be explained by NYS’ increases in revenue and the creation of the NYC ERB. Between 1933 and 1934, revenue receipts rose from \$227,617,970 to \$267,258,055, a 16 percent increase. And the NYC ERB, the largest ERB during the TERA’s operations, was instituted. As we explain later, the NYC ERB

Figure 3.6: Real disbursement per beneficiary (1929 dollars, CPI deflated)



Source: Author’s calculations (see section 1.6)

concurrently receiving TERA funding and raised funds independent of the TERA through additional tax increases, appropriations, and gifts from the federal government.

Whether or not the City would be reimbursed for its expenditures was unclear. This was the result of legal caveats and lack of clarity. The former was reflected in official TERA documents. The Wicks Act gave the TERA the power to determine the eligibility of expenditure reimbursements subject to funding availability and change at any point in time. While the TERA classifies some of its aid as reimbursable it left what aid wasn’t reimbursable ambiguous: “certain classes of expenditures are not reimbursable. What those exceptions are have been clearly defined in some instances, but in other instances the question remains in the realm of endless discussion, deliberation and debate between the State and City organizations (Stryker 1935: p. 22).” At the same time, since the TERA was receiving aid from the FERA, the program “[w]as compelled to abide by the conditions imposed and the rules [F]ERA laid down. This means that, by receiving funding from the TERA, the City was subject to the rules of the FERA (Stryker 1935: p. 87). Moreover, any “deviation in any respect by the City from the TERA rules in purchasing materials, would result in non-reimbursement (Stryker 1935: p. 95).”²⁰As the largest bureau, the NYC ERB exemplified

²⁰A testimony by Colonel Wilgus of the CWA illustrates the issue well:

Due to the short period of authorized project applications, coupled with the fact that the Works Division does not know from month to month how much shall be appropriated for wages, materials and equipment, this practice literally compels the Works Division to work from hand to mouth, wither the resulting confusion, uncertainty and other obvious disadvantages. These appropriations in most cases are not made until a day or two before the end of each month for the succeeding month. In the case of the month of April, 1935, the appropriation for Works Division did not reach me until the night

3. COSTS AND QUALITATIVE ACHIEVEMENTS

Table 3.2: City, state and federal governments' share of direct and work relief expenditures in NYC, 1934M01-1938M06.

Date	City's share	State's share	Federal government's share	Total expenditure
1934	49,905,410.00	127,234,070.00	36,280,298.00	213,419,778.00
1935	51,477,865.00	130,604,925.00	94,067,728.00	276,150,518.00
1936	61,182,468.00	47,617,624.00	228,046,798.00	335,846,890.00
1937	71,694,345.00	42,404,341.00	158,669,855.00	272,768,541.00
1938M01	6,828,897.00	3,986,362.00	11,479,897.00	22,295,156.00
1938M02	6,713,631.00	3,914,489.00	10,458,330.00	21,086,450.00
1938M03	6,586,250.00	3,898,074.00	12,903,859.00	23,388,183.00
1938M04	6,265,396.00	3,677,565.00	13,911,944.00	23,854,905.00
1938M05	6,113,250.00	3,594,638.00	11,784,447.00	21,492,335.00
1938M06	6,011,724.00	3,533,677.00	12,739,006.00	22,284,407.00
Grand total	\$272,779,236.00	\$370,465,765.00	\$590,342,162.00	\$1,232,587,163.00

Source: New York Emergency Relief Bureau. "Unemployment relief in New York City." 1939. Digitized by author.

these problems.

The ERB was primarily funded by the TERA and FERA as well as by tax increases NYC Mayor LaGuardia enacted upon entering office.²¹ For the former, Table 3.2 illustrates the share of City, State, and Federal funding of NYC total relief expenditures from 1934 to June 1936. The data show a shift between the City's reliance on State and Federal expenditures. At the ERB's inception, the organization was relying on the New York state for over double its share of funding, indicating a difference of over \$77 million. This reliance switched over to the Federal government in 1936, accounting a similar City-higher government disparity

of April 3rd (Wilgus, 1935; Stryker: 91).

²¹Elected Mayor of NYC January 1, 1934, LaGuardia ran on a five-point platform of: "(1) Restoring the city's fiscal health and winning back its political independence from the bankers' consortium; (2) developing a humane and fiscally prudent relief program; (3) cleaning out municipal racketeering and corruption; (4) establishing a merit-based civil service for an efficient and modern municipal government; and; (5) rebuilding New York into a modern, aesthetically pleasing, efficient city, LaGuardia set out to change the status quo. That said, on his first day in Office, he authorized the use of public funds for outdoor relief, centralized relief operations to mitigate inefficiency and confusion, and established an ERB. He did this by jointly authoring a revision of the 1898 City Charter and enacting the Economy Law of 1934.

This law declared that NYC was in a state of emergency and put forth provisions to curb unnecessary spending and centralize relief agencies. Section 2 called for a reduction of expenditures, more efficiency of operations, centralization of agencies, and the elimination of overlapping relief efforts, per clauses a, b, c, d, and e, respectively. Section 3 empowered the City to reorganize agencies by abolishing, transferring, consolidating them, and designate and/or change the name or functions of existing agencies. Section 4 authorized the City to fix the compensation of "each and every person" excluding employees whose salaries are below \$3,000 (CBC: 219) Mayor LaGuardia's revisions were largely influenced by the inconveniences the TERA and FERA posed—namely, a bifurcation of responsibility and authority over relief funds and administrative disorganization.

of almost \$167 million. This switch was due in part to Mayor LaGuardia's relationship to President Roosevelt.²² For the latter, besides his relationship to Roosevelt, LaGuardia depended on tax increases and the interest they incurred to support his City and its Bureau. Between 1934 and 1935, emergency relief taxes represented about a 30 percent increase in the City's income. The Mayor's increase in special taxes constituted a considerable share of revenue in both years at around \$35.6 and \$31.4 million, respectively. Yet, his 2 percent increase in estate taxes was the cornerstone of the city budget, representing nearly 63 and 67 percent of the entire budget in both years. This extensive tax base was particularly important because NYC had limited power to incur debt and raise taxes. Under New York State's Constitution, "no county or city, therefore, [w]as allowed to become indebted to an amount which, including existing indebtedness, [e]xceeded ten percent of the assessed valuation of the real estate of the county or city subject to taxation (Gayer 1935)."

State work relief funds were primarily designated for wages; cities, towns, and counties personally assumed much of the financial burden of project materials—supervision of projects, maintenance fees, office spaces and supplies, and physical work materials—their own accord in compliance with TERA rules and regulations. In other words, "the appropriation of funds for work relief may contemplate the purchase of materials without which it would be impossible to accomplish the work relief intended to be paid the wages to perform the work contemplated under each project (NYS Legislature 1931: Chapter 798, section 2 and 10; NYS TERA 1934b: p. 140)." The purchase of materials was subject to fewer restrictions from the state, but was closely examined by the federal government. The TERA maintained that municipal corporations could obtain necessary materials under or not under contract, insofar as the majority of funds were used for work relief wages. Yet, under the National Industrial Recovery Act (NIRA), and the resultant National Recovery Administration's (NRA) Codes of Fair Competition, municipalities were subject to competitive bid requirements for purchases exceeding \$100 (NYS TERA, 1934b: p. 136-37). Given the type of projects pursued, contracts based on competitive bids were advertised and publicly opened and a certificate of conformance with the law was required.²³ Between 1931 and the 1933, municipal corporations were reimbursed 40 percent of expenditures. After an amendment to the Wicks Act April 1934, reimbursements were increased to 75 percent. In the case of

²²"He [h]ad a confidential relationship with President Roosevelt enjoyed by no Democrat... The doors of the White House open at his radiant approach, and the President [w]as never too busy to sit down and have a chat with him." Roosevelt himself said "Our Mayor is the most appealing man I know. He comes to Washington and tells me a sad story. The tears run down my cheeks and tears run down his cheeks and the first thing I know he has wangled another \$50 million (Kessner 1993, p. 155)."

²³Otherwise, the expectation was to seek official permission to buy against contracts.

The act of obtaining public project materials—for example, renting trucks, teams and construction equipment—faced further regulations under the Act. Contract bids from individual owners or owners receiving relief assistance were legally required to receive preference.

Table 3.3: NYC sources of income, 1934

Sources of income	1934
<i>Real Estate and Personal Taxes</i>	\$486,002,422.11
<i>Water Rates</i>	33,536,426.42
<i>Special Taxes</i>	35,653,690.61
<i>Emergency Relief Taxes</i>	1,692,386.55
<i>Franchises and Privileges</i>	3,131,941.31
<i>Rentals from Subways</i>	2,942,029.60
<i>Dock and Slip Rents Ferry Fares and Privileges, etc</i>	9,440,155.45
<i>Licenses and Permits</i>	3,083,620.37
<i>Interest on Taxes, Water Rates, Assessments, etc</i>	16,194,226.53
<i>Fees, Fines, Penalties and Forfeitures</i>	7,094,896.84
<i>Rental of City Property</i>	1,019,714.54
<i>State Aid for Schools</i>	27,415,440.27
<i>State Aid for Old Age Relief</i>	3,345,838.57
<i>State Contribution for Unemployment and Home Relief</i>	112,271,335.64
<i>Public Works Administration Receipts (Federal Gov't)</i>	-
<i>Received from Various Authorities for the Acquisition of Property Needed by said Authorities</i>	-
<i>Reimbursements of Various Kinds</i>	4,236,997.85
<i>Received from Capital Reserve Fund of the Independent Subway System</i>	-
<i>Miscellaneous Other Receipts</i>	1,534,497.06
<i>Total Receipts from All Sources other than Assessments and Borrowings</i>	\$748,595,619.72
<i>Assessment for local Improvements</i>	12,858,776.05
<i>Borrowings from the Public, from the Federal Government and from the City's Pension Funds</i>	514,222,189.11
<i>Sale of Securities by the Sinking Funds to the Public and to the Pension Funds</i>	43,650,000.00
<i>Grand total receipts from all sources:</i>	\$1,319,326,584.88

Source: NYC 1936; digitized by author.

work relief-related charges, the only non-reimbursable expenditures were certain materials for projects.^{24,25}

²⁴To our knowledge, this criteria is not available.

²⁵Public projects completed on the basis of relief tended to run a heftier bill than similar projects handled by regular public or private work. A good example of this is the experience of the New Jersey Emergency Relief Administration. Director of its Research Division, Douglas MacNeil, lamented the transition from the work-for-relief 1932-33, to the work relief program 1934-36 because the paid wage employment supposedly inflated the costs of relief projects up to three times more (MacNeil 1938, p. 160-61, 181-84). One of the arguments supporting this proposition was that work relief conditions—little opportunity for advancement in roles and oftentimes a mismatch of jobs and skills—drove down morale, resulting in workers who needed the work, but felt minimal obligation to put in the effort required to complete the work. In this sense, relief work holds few benefits to the worker. Moreover, just as paid made-work was thought to increase costs to the governments, the mismatch of skills compounds this impact. The New Jersey Emergency Relief Administration was established June 30, 1932. Rather than operating on a dual home relief and paid-wage employment scheme, the program retained home relief but encouraged relief-certified community members

Table 3.4: TERA projects, 1931M11-1932M10

Type	Number	Percentage
Highway	609	40
Sanitation	249	16
Water supply	120	8
Parks and playgrounds	180	12
Utilities and structures	138	8
General public improvements	55	3
Clerical and professional	167	11
Miscellaneous Jobs	37	2
Total	1,555	100%

Source: NYS TERA 1932c; digitized by author.

Within the first seven months of work relief, 1,555 projects were undertaken.²⁶ These projects consisted of the construction and repair of highways, streets and roads, water supply, sanitation, parks and playgrounds, utilities and structures, and more general positions—namely, general public improvements, clerical and professional roles, and miscellaneous jobs. Table 3.4 presents the number of each of these projects undertaken, as well as the percentage each type of project made up of the total projects.

Highway, street and road construction and repair, representing 40 percent of all projects undertaken during the period.²⁷ The two other popular projects were sanitation and parks

to complete projects useful to the public in exchange on the basis of their own freewill (MacNeil 1938, p. 160-61). In other words, furnishment of relief was independent of if, and to what extent, recipients completed work.

²⁶One could argue that should the total amount of projects completed would have been higher if the private sector, financed by the Federal and State governments undertook the projects. One line of argument is centered on self-competition effects—thought of in this context as the public sector’s race to the bottom. That is, the condition whereby a company essentially enters competition with itself, leading to diseconomies of scale or scope. In a depressed economy where the private sector falters, additional expenditures into made-work public employment could limit future public sector investment. Public projects for emergency public employment competed for the same public expenditures. Notwithstanding the funding decision selected, the result would shift the preference for the public works projects in the future. Put differently, public sector project intra-competition makes it so that investment into one project would reduce municipalities’ capacity to undertake other projects in general and would cause a relative decrease of that same project in the future in particular (Lester 1934, p. 473). In this sense, the self-competition effect is similar to the impacts of instituting emergency paid-wage employment: in addition to decreasing funding to future public works projects, self-competition could also displace usual non-relief workers from employment in favor of relief workers. In other words, “if public buildings are improved or constructed by relief labor, the budgetary appropriation for such items will be curtailed relative to appropriations for other items, and building tradesmen will be deprived of employment that they otherwise would have had (Lester 1934, p. 472-73).”

²⁷Highways had four classifications: state and county highways, county roads, and town highways. State highways were funded only by NYS. County highways were at the expense of the NYS, county and town or NYS and the county (NYS TERA 1934b: p. 155-56). County road reconstruction and repair was at the expense of the county, and town highways were at the expense of the town with aid from NYS.

and playgrounds, 16 percent and 12 percent of all projects, respectively. Some of the least pursued projects during the period were “miscellaneous” and clerical and professional jobs, 2 percent and 11 percent, respectively. Miscellaneous jobs included the reconditioning and distribution of worn clothing and unspecified projects designated to unemployed women. Clerical and professional projects were tasks indispensable for the operation of local welfare districts: clearing public records, traffic and topographical studies, and general clerical duties needed in relief bureaus and welfare agencies’ offices (NYS TERA 1932c: p. 180). Though the TERA engaged in an impressive amount of projects in its first year, it did not manage to put each and every unemployed person to work. For example, in May 1932, roughly 30 percent of certified work relief persons were employed by a local EWB or ERB in upstate NY. That is 29,715 out of the 98,555 work relief caseload in upstate NY in the period.

Chapter 4

Theoretical implications and the TERA multiplier effect

If the Treasury were to fill old bottles with bank-notes, bury them at suitable depths in disused coal-mines which are then filled up to the surface with town rubbish, and leave it to private enterprise on well-tried principles of laissez-faire to dig the notes up again [...], there need be no more unemployment and, with the help of repercussions, the real income of the community, and its capital wealth, would probably become a good deal greater than it actually is. It would, indeed, be more sensible to build houses and the like; but if there are political and practical difficulties in the way of this, the above would be better than nothing.

John Maynard Keynes (1936, p. 129)

The previous sections presented the economic, political and legislative narrative surrounding the creation and implementation of the TERA and its corresponding offshoots, the ERBs. Here, we provide an overview in terms of economic theory. To do this, we place ourselves during the 1930s and survey the state of economic thinking say, circa 1939. The Great Depression was an important event, forcing economists to re-evaluate theory and think outside of the box. Indeed, the 1930s were a time of buoyancy of economic ideas, spurred no small part by the unusual events before the eyes of contemporary economists. An exhaustive account of the state of economics at in the 1930s is beyond this paper's scope. That said, we limit ourselves to highlighting the two major economic theories relevant to our study: the "Neoclassical" and "Keynesian."¹

¹We use quotation marks to denote the fact that those terms can mean various things to various people, but in what follows we drop the quotation marks for clarity.

4.1 The Neoclassical model

Neoclassical theory is the body of knowledge origination from the works of Marginalist economists,² for instance, Marshall (1890) and Pigou (1933). The principles of this school of thought is captured well by the Cobb-Douglas (1928) production function. This production function is built around markets—the labor market, the capital market, the output market. Postulating specific conditions of perfect competition, market prices—real wages, the real return to capital, and the aggregate price level—adjust to correct for any discrepancy between supply and demand. The result of this is a general equilibrium. That is, where each market clears so as to absorb any potential excess supply or demand. Thus, in the long-run, the invisible hand reconciles supply and demand. One of the defining characteristics of this neoclassical model is the perfection of markets (and of individual behavior). For when markets are perfect, as they are assumed to be, the resulting equilibrium is optimal. Accordingly, there is no deadweight loss, (involuntary) unemployment, or unused production capacity. In other words, in the neoclassical model all resources are used efficiently.³ As a result, government intervention is bemoaned: since the market is perfectly efficient and self-adjusting, intervention can only be detrimental.

Keynesian theory is the body of knowledge originating from the works of John Maynard Keynes in the 1930s—as well as by his colleagues and followers such as Kahn (1931), Robinson (1933), Hicks (1937) and Samuelson (1939), among others.⁴ Keynesians discard many of the neoclassical assumptions resulting in an analysis with imperfect competition, as well as a nonergodic environment, economic rents and other market inefficiencies (Davidson 2011). For example, market activity seldom reaches its potential and resources are underutilized. In this analysis, the outcome is involuntary unemployment and disequilibrium.⁵ Oftentimes disequilibrium is characterized as a consequence of deficient aggregate demand. As a result, Keynes, his colleagues, and his followers posited that, when the private sector is incapable of reaching a satisfactory outcome, the public sector ought to, in effect, save the market from itself. If done properly, a macroeconomic policy stabilizing demand would alleviate, if not prevent, the pain associated with economic downturns. In this case, proper government intervention will be beneficial. Indeed, proper government management of aggregate demand could even lead to a multiplier or accelerator effect.⁶

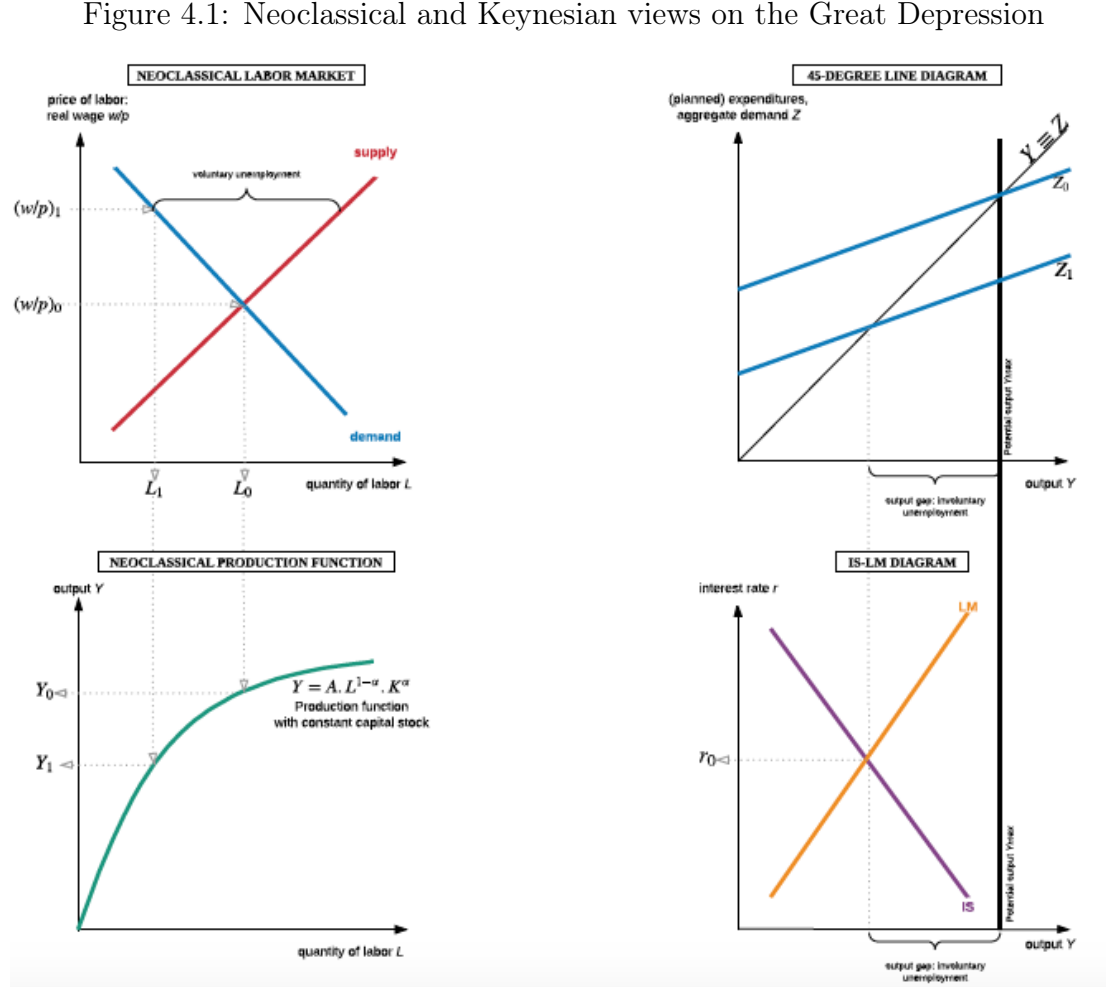
²See, for instance, Walras (1874), Menger (1892), and Jevons (1894).

³This implies that the private economy is optimal.

⁴See, for example Fisher (1933) and Kuznets (1934).

⁵Or a “low” equilibrium position.

⁶The former is the principle “one’s spending is another person’s income in action.” An injection reverberates throughout the economy, stimulating additional spending, resulting in an increase in aggregate demand. Recall the two sector income equilibrium condition $Y = C + I$, where Y represents income, C consumption,



Source: Constructed by author

This overview of these two economic theories can be further illustrated using the series of graphs presented in Figure 4.1. These graphs are modern representations of the ideas developed in the 1930s; they represent pedagogical visual aides which tell a story. We do not go back to the construction of the graphs and focus our attention to the narrative they

and I investment. We assume that an increase in Y leads to an increase in C , meaning $\Delta Y = \Delta C + \Delta I$. Yet, we can rewrite this equation to derive the marginal propensity to consume (MPC): $MPC = c = \frac{dC}{dY}$. That is, the additional consumption that takes place following an increase in disposable income. An increase in income will increase consumption spending, but less than unity (Keynes 1936, p. 88). That is, since we do not know what the next day will hold, consumers spend a portion of their new income, but not all of it. Substituting this back into the equation gives us $\Delta Y(1 - c) = \Delta I$ or $\frac{\Delta Y}{\Delta I} = \frac{1}{1-c}$. For simplicity, we represent the right-hand term, $\frac{1}{1-c}$, with k —our multiplier. Since labor demand depends on effective demand $D = f(N)$ —that is, the sum of the demand for consumption and investment—effectively the expectation of sales, employment would increase along with GDP. The latter is the relationship between the change in investment and the level of national income. The process is straightforward: the creation of higher profits increases firm confidence, leading to an increase in their level of investment, $K^* = \alpha Y$, where K^* is the desired level of capital stock—postulating that desired capital stock is proportional to output.

depict.

The two stacked graphs on the left present the neoclassical labor market (top left) and the Cobb-Douglas (1928) production function (bottom left). Supply and demand of work-hours intersect in the labor market to determine an equilibrium at $E_0 = (L_0, \frac{w}{p_0})$. The equilibrium quantity of labor L_0 represents an input for the production function, so that for any given value of the coefficient A^7 and the capital stock K , equilibrium output is given by $Y_0 = A.L_0^{1-\alpha}.K^\alpha$. Any change in A or K will shift the production function accordingly. However, the Great Depression was characterized by high and persistent unemployment, meaning the equilibrium point E_0 is unrealistic. Instead, the 1930s American economy is better characterized as the disequilibrium situation $E_1 = (L_1, \frac{w}{p_1})$. Unemployment occurs when the supply of work-hours is greater than the demand of work-hours at the prevailing real wage rate. When the real wage rate is above equilibrium at $\frac{w}{p_1}$, the quantity of work-hours demanded by employers is set low at L_1 . At the same time, the quantity of work-hours offered by workers is higher—generating a surplus of work-hours (unemployment). Crucially, this is *voluntary* unemployment, to the extent that workers, insofar as they are allowed to, could and should offer their services at a lower real wage rate. The point here is that, within the context of the 1930s, the neoclassical labor market construction posits that the “truculence of labor”—greedy workers demanding too high a real wage in the face of the Great Depression—is the root cause of unemployment. Indeed, if the real wage rate were to fall from $\frac{w}{p_1}$ to $\frac{w}{p_0}$, employees might earn less but employers would hire more, up to the point where real wage cuts absorb the unemployment problem at the market-clearing price $\frac{w}{p_0}$. As long as real wages are too high, the unemployment problem persists, limiting the number of workers employed to L_1 , and therefore constraining output to the lower level $Y_1 = A.L_1^{1-\alpha}.K^\alpha$, $Y_1 < Y_0$.

Policy implications Mass unemployment in the 1930s can be seen as a temporary problem with significant consequences. Neoclassical economics emphasizes price regulation: in the long-run, real wages will fall enough to clear the labor market. In this line of thinking, prices should be let free to fluctuate and the conditions of perfect competition should be promoted. In other words, *laissez-faire*⁸ should prevail. In the strict sense of the neoclassical model presented above, there is no space for government intervention—preventative or palliative—for reducing mass unemployment. Instead, markets will self-correct if left to their

⁷Here, coefficient A is a constant; in Cobb and Douglas (1928) empirical study, $A = 1.01$. In the postwar this coefficient came to be known as “the Solow residual” as in Solow (1956) and later as total factor productivity (TFP). We now know that TFP is not constant and can explain a large fraction of the fluctuations of output—though a precise theory of TFP is still lacking.

⁸French for “let (markets, individuals) be”.

own devices.

Why real wages do not fall in downturns

Before explaining the Keynesian model, it is imperative to make a note about prices. As shown above, prices play a significant role in the adjustment of markets in the neoclassical model.⁹ This note addresses the price of labor which, in the baseline neoclassical model, is equal to the real wage rate $\frac{w}{p}$: it is a relative price. Here, we want to know what the real wage depends on.

We first note, along with Keynes (1936), that workers bargain or are hired for a *nominal* wage rate w , whereas the overall price level p is outside of the control of individual workers.¹⁰ This begs the question of what happens to the real wage rate in the face of mass unemployment?

Let the economy consist of three markets—a labor market, a capital market and an output market—where prices are, respectively, p_L for the price of labor, p_K for the price of capital and p the output price. By definition, p_L equals w in our previous notation, and the price of output is the weighted average of its labor and capital components. Since there is only labor and capital costs in the present case, the price of output is $p = (1 - \alpha) \cdot p_L + \alpha \cdot p_K$, where parameter α is the capital share in total cost—the same α as in the Cobb-Douglas production function $Y = A \cdot L^{1-\alpha} K^\alpha$. This expression for the output price can be used to investigate the behavior of the real wage. At any point in time and in any condition, the real wage equals

$$\begin{aligned}
 \frac{w}{p} &\equiv \frac{p_L}{p} = \frac{p_L}{(1 - \alpha) \cdot p_L + \alpha \cdot p_K} \\
 &\Leftrightarrow (1 - \alpha) \cdot \frac{p_L}{p} = \frac{(1 - \alpha) \cdot p_L}{(1 - \alpha) \cdot p_L + \alpha \cdot p_K} \\
 &\Leftrightarrow (1 - \alpha) \cdot \frac{p_L}{p} = \frac{(1 - \alpha) \cdot p_L + \alpha \cdot p_K - \alpha \cdot p_K}{(1 - \alpha) \cdot p_L + \alpha \cdot p_K} \\
 &\Leftrightarrow (1 - \alpha) \cdot \frac{p_L}{p} = 1 - \alpha \cdot \frac{p_K}{p} \\
 &\Leftrightarrow \frac{p_L}{p} = \frac{1}{1 - \alpha} - \frac{\alpha}{1 - \alpha} \cdot \frac{p_K}{p}
 \end{aligned} \tag{4.1}$$

It is important to note that, in the perfectly competitive neoclassical labor market, individual real wages are paid at the level of individual marginal productivity.¹¹ By aggregation across

⁹See Giovannoni 2014.

¹⁰Indeed, in the competitive neoclassical model, economic agents are price-takers.

¹¹In terms of the application of the policy, there are three pay rate scenarios: relief workers are paid either

individuals and switching to the macroeconomic level, this implies that the average real wage is proportional to average labor productivity. Yet the labor share $1 - \alpha$ is by definition the ratio of the average real wage to average labor productivity: $1 - \alpha = \frac{W}{Y} = \frac{w \cdot N}{p \cdot Q} = \frac{w}{p} / \frac{Q}{N}$. This means that, in the competitive model, the labor share and by extension, the capital share, are constant. Denoting constancy by a bar over a variable and defining $\frac{1}{1-\alpha}$ as $\bar{\beta}$, our last expression rewrites

$$\frac{p_L}{p} = \bar{\beta} - \bar{\alpha} \bar{\beta} \cdot \frac{p_K}{p} \quad (4.2)$$

Several points are worth noting in equation (4.2):

1. The equilibrium price of labor is contingent on the equilibrium price of capital; the two markets are interconnected.
2. As the price of capital goes up, wages must come down, and vice-versa. That is, (real) wages are a linear function of the (real) price of capital: $\frac{\partial p_L}{\partial p_K} = -\frac{\alpha}{1-\alpha} < 0$.
3. There must be perfect price flexibility. To maintain equilibrium across the labor and capital markets, prices must come into balance exactly and instantly according to equation (4.2).
4. Absent perfect price flexibility, either the labor market or the capital market—and therefore the output market—will be mispriced. As a result, there will be a shortage or a surplus, and overall a misuse or waste of resources.

more, less, or the same than non-relief workers. If relief workers are paid below the prevailing wage rate, they will undercut non-relief workers in the public sector. Lester (1934, p. 482-84) supposes that the “emphasis on economy” would lead public sector employers to replace their regulars with emergency labor to minimize costs. In other words, the cost motive is sufficient to influence the substitution of skilled labor for usually unskilled labor. In the case that those on the relief rolls are paid comparable wages to regular workers, it is said that non-relief workers are slighted. That is, their experience goes unrewarded. This suggests that equivalent wages cause wage rigidity within the public sector labor market.

With relief workers determining the benchmark wage in the public sector, employers are unable to adjust labor costs without layoffs. Next, if relief workers are paid a wage higher than regular workers, intuitively, these non-relief workers would sort onto the relief rolls. This all holds two implications. The first is that there is effectively no “fair” rate of pay for relief workers. This is because relief workers were selected on the basis of need, not marginal product—ability, experience, and expectation of productivity. Accordingly, knowing that relief labor came with diverse experience which sometimes was and sometimes was not relevant to the designated public projects, the fixed wages did not account for output. Meaning that relief workers actually qualified for certain projects were slighted. The second is that regardless of the wage paid to relief workers, their presence in the labor market would induce further unemployment, increasing the total relief caseload and increasing costs to the state, local, and federal governments. An implication of these increasing costs is lack of productivity.

Furthermore, the neoclassical model posits that unemployment can be reduced by a fall in real wages. That said, we want the rate of growth or real wages to be negative. Taking the log-derivative on both sides of equation (4.2), one gets

$$\Delta \ln \frac{p_L}{p} = -\bar{\alpha}\bar{\beta} \Delta \ln \frac{p_K}{p} \quad (4.3)$$

In order to achieve $\Delta \ln \frac{w}{p} < 0$, the right-hand term must be negative too. This means that the real price of capital must increase. Intuitively, when the real price of capital increases beyond a certain level, the overall price level increases as well and, for any given nominal wage, the real wage will decrease, reducing unemployment.

We have shown that the labor, capital and output markets are interconnected not just in terms of quantities as in the Cobb-Douglas production function, but also by their prices. We have derived expressions (4.2) and (4.3) relating the relative price of labor to the relative price of capital. Those expressions show that to reduce unemployment, real wages must fall; to reduce real wages the real price of capital must increase. Herein lies the problem: in the 1930s the real price of capital did not rise. In the Great Depression, just like in any recession, the price of capital is more likely to fall than it is to rise. This is true no matter what meaning we give to the notion of “capital.” For instance, if by “price of capital” we mean the price of machinery, then the price of capital is likely to fall as machinery producers liquidate their inventories. Just as well, if by “price of capital” we mean the price of borrowing funds, i.e. the interest rate, the interest rate is usually and was indeed cut (mostly) during the Depression. Finally, if by “price of capital” we mean the price of financial assets, those are likely to fall in a recession too. That said, it appears that no matter how you define the price of capital, a downturn in economic activity is more likely to come with a decrease in the price of capital. As a result, the aggregate price level in a downturn will consist of two components—the price of labor and the price of capital—which are going down, so that real wages are increasing. The labor market requires a fall in real wages to clear, but the deflation characteristic of a downturn means that real wages will rise.

4.2 The Keynesian model

The two stacked graphs to the right of Figure 4.1 can be used to tell a Keynesian narrative. The top right graph represents the 45-degree diagram and the bottom right diagram represents the IS-LM model.^{12,13}

¹²Keynes (1936) never used diagrams and yet much of his writing lends itself to modern representations using graphs. The IS-LM model of Hicks (1937) presents such interpretation.

¹³Again we do not return to the construction of such graphs.

The 45-degree line diagram is used to present the aggregate demand function Z which consists of all (planned) expenditures adding up to GDP. When those planned expenditures are realized, they amount to a certain level of economic activity Y . This level of economic activity can then be compared to the level of potential output which, at any given point in time, represents the level of economic activity resulting from the full employment of all resources. The gap between realized expenditures and potential output is called the output gap and, by definition, it is commensurate with the extent of unused resources. The graph is drawn to represent two levels of possible expenditures. The first Z_0 represents the point of effective demand. That is, the level of expenditures compatible with an output gap of zero and a full employment of resources. The second Z_1 represents a position of unused resources, positive output gap, and therefore some degree of unemployment. It is important to note that, contrary to the neoclassical model where unemployment is the consequence of *voluntary* unemployment—the truculence of labor demanding too high wages—the Keynesian model attributes unemployment to a lack of aggregate spending. The amount of aggregate spending is outside of the control of individuals, who then turn out to be *involuntarily* unemployed.

The bottom graph represents the IS-LM model (Hicks 1937). The graph represents the investment-saving (IS) schedule which is used to depict all possible equilibrium positions on the goods market, and is used to assess the effects of fiscal policy. The liquidity-money (LM) schedule represents all possible equilibrium positions in the market for loanable funds, and the curve is used to assess the effects of monetary policy. The IS-LM graph is drawn to match the 45-degree-line diagram, using their common elements such as the bottom axis Y , the level of potential output and the extent of the output gap.

Policy implications Because the Keynesian model explicitly accounts for a positive output gap, it is no surprise that economic policy is an integral part of the model. We need not explain the precise reasons as to why the economy can or did deviate from its potential, full-employment level of output. The fact of the matter is that, during the Great Depression, the economy was substantially under-performing, as evidenced by widespread unemployment of 25-30 percent of the labor force. However, we do go into the policy implications of such a low equilibrium point as represented by Z_1 .

The 45-degree line diagram indicates that this equilibrium point results in unemployment and can be remedied by an increase in spending. The IS-LM graph tells the same story but is more detailed: the required increase in actual spending can be triggered by shifts to the right of the IS curve, the LM curve, or both jointly. That is to say, unemployment and the output gap can be shrunk by increasing spending through, respectively, fiscal and/or monetary policies. Here, the typical fiscal policy measure is an increase in government spending G

and/or cutting taxes T . Whereas the typical monetary policy is cutting the interest rate r and/or increasing the money supply M .

4.3 Application to the case of the TERA legislation

The previous section broadly presented the legacy neoclassical model and contrasted it with the prototypical Keynesian model as it was being developed. This present section connects the specific case of the TERA legislation to those grand theoretical constructs. Several points ought to be made:

1. What kind of policy was the TERA? As discussed previously, the TERA was a policy providing home relief and work relief. This means that program provided conditional incomes and jobs to the needy. On the financing side, the funds came from a meager tax increase on the very wealthy as well as charitable contributions, transfers from the Federal government and borrowing (see section 3.4). Thus, the TERA is better understood as a jobs-and-incomes policy financed by transfers. As some may remark as surprising, this balance sheet of expenditures and receipts was, in a large part, balanced. As such, the program was more akin to a policy of income redistribution or a balanced-budget policy than deficit-spending, as Keynesian fiscal policy later came to be understood as. In short, the TERA could be described as a redistributionist (or “bottom-up”) jobs-and-incomes policy.

2. Was the TERA a neoclassical policy? It should appear obvious after the previous section that neoclassical economists would at best be skeptical and at worst condemn Roosevelt’s TERA. As we have seen in our overview above, neoclassical economic policy is severely restricted to the promotion and enforcement of perfect competition. Indeed, for them, perfect competition clears markets, not governments. The idea is that a market operating under the auspices of *laissez-faire* allocates resources efficiently—there is no need for redistribution insofar as individuals are compensated at the level of their contribution to the production process. Overall, it is hard to describe Roosevelt’s TERA legislation as a neoclassical device; an interventionist policy can hardly be reconciled with the principles of *laissez-faire*.

3. Was the TERA a Keynesian policy? The TERA was in the general Keynesian spirit, but actually predates the *General Theory*. Put differently, the policy was a government intervention in the face of mass unemployment, but the *General Theory*—which is widely regarded as providing the theoretical justification for government intervention in times of

crisis (and perhaps beyond)—came five years later. In this sense, Roosevelt intervened as a Keynesian before Keynes legitimized government intervention.¹⁴ In terms of targeting, the TERA was specifically directed toward the unemployed and the needy, not the overall level of aggregate demand (which would then have to be distributed between the haves and the haves-not). Nor was TERA a deficit-spending policy. Overall, the TERA was a policy predating Keynes (1936) but arguably compatible with the general spirit of the Keynesian message. Or at least much more than it is with the neoclassical message.¹⁵

4. Was the TERA a legislation acting in the general direction advocated by neoclassical economics? By asking this question we mean to go beyond contrasting the Keynesian interventionist and neoclassical non-interventionist principles. A neoclassical economist could be persuaded to accept the TERA policy if it was clear that it helped lower real wages. For a neoclassical economist, the question then becomes what would happen to the real wage when both the nominal wage and the price level increase, assuming that the TERA legislation was effective at shoring up both. If the TERA increased the overall price level faster than it did the nominal average wage rate, real wages could have fallen leading to a resurgence of economic activity, all according to neoclassical principles.

5. Was the TERA a legislation acting in the general direction advocated by Keynesian economics? Gov. Roosevelt wanted reflation, not deflation. He clearly indicated that what was needed was to end the deflationary tendency in the overall price level as well as in the price of labor. Yet, this was the Keynesian position too, to the extent that Keynes advocated for propping up aggregate demand. For instance, if TERA overall raised (real) aggregate demand, the jobs-and-incomes policy would stimulate economic activity.

¹⁴This quirk in the timeline proves that economic policy and especially TERA is implemented not so much following the advice of economists, but on pragmatic grounds. When the economy crashed and unemployment soared, something had to be done, and the policy could only be conceived urgently without waiting for economists to devise well-formatted models. As already stressed, Roosevelt's TERA was a legislation of action which predates almost everything written in economic theory.

¹⁵Yet, one could argue that the TERA's ephemerality is simultaneously in and out of the "true" Keynesian spirit. Advocates of the job guarantee, for example, would posit that since the TERA was temporary (hence the title), it is merely a short-term solution to what is a perpetual problem. In contrast, Keynes envisioned a preventative unemployment measure (see Tcherneva 2005, 2012, 2014 and 2015). The fundamental difference is more than duration of program. Indeed, it is a bigger theoretical question of the long-run feasibility of establishing an infinitely elastic supply of labor.

4.4 What is the TERA's multiplier?

The previous two sections presented the qualitative achievements of TERA and a theoretical reading guide of the legislation. Yet, as we discussed in the introduction, there is a shortage of studies assessing the impact of fiscal policies during the Great Depression, at least relative to the number of studies insisting on the role of monetary policies. Moreover, to our knowledge, there are no studies that assess the impact of the TERA. The program was a fiscal policy, and the traditional way of assessing the impact of a such a policy is through the concept of the fiscal multiplier. This alters the question of “was the TERA effective?” to “what was the TERA's fiscal multiplier?”

TERA by the numbers

- Between 1931-37, on average, TERA beneficiaries constituted 25.2 percent of the state population.

Figure 1.11, displays TERA beneficiaries as a percentage of the New York State population. Throughout 1931-37, beneficiaries made up about 0.7, 15.4, 33.1, 41.6, 45.7, 27.6, and 12.2 of the state population. There are outliers for the 1931 and 1937 observations that are the result of the TERA's Nov. 1931 enactment and June 1937 dissolution.¹⁶

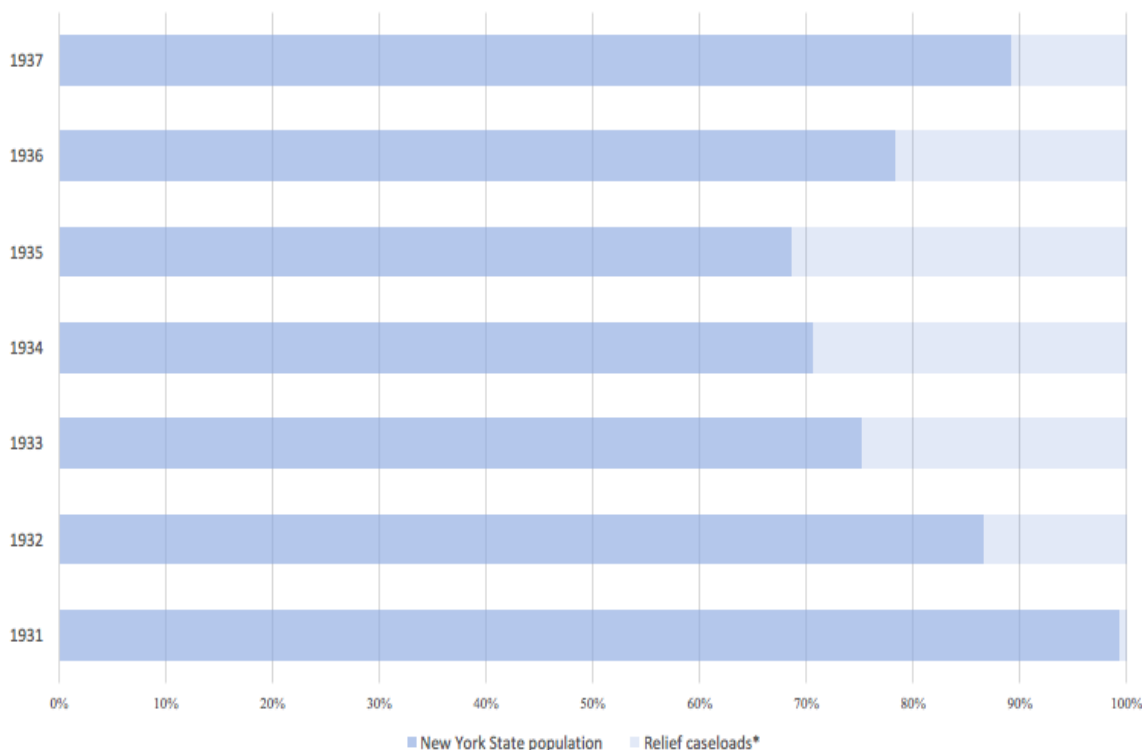
- In 2017 real dollars, on average, TERA work relief beneficiaries earned \$762.62 monthly at a rate of \$6 per hour. In current dollars, this was about \$42.40 per month at a rate of \$0.33 per hour.

The wage rate was designed to match the prevailing wage rate in the given municipality for the type of work performed. As Figure 5.2 shows, from 1931-37 the average annual hourly wage rate for TERA work relief beneficiaries was \$4.72, \$5.94, \$5.23, \$6.75, \$6.84, \$5.70, and \$5.73, respectively (2017 real dollars).¹⁷ This rate was volatile throughout the TERA's

¹⁶There are a few notes that deserved to be made here. The precise number of TERA beneficiaries is complicated. The program's primary reports provide beneficiary data that use undefined terms seemingly interchangeably. For example, the final report of the TERA, “Five million people one billion dollars,” terms the number of beneficiaries data series as “number of resident families and unattached persons receiving relief.” Whereas a previous report (1934b, p. 18) provides, for the most part, observations consistent with the final report but under the term “number of families receiving relief.” This terminology is by no means trivial. This is because these data do not explicitly indicate the total caseload of TERA recipients, which we assume by the title of the final report to be about 5 million. Yet, the data reporting the number of families and unattached persons receiving relief totals roughly 23.4 million people. This suggests that the term “total caseloads” and families and unattached persons are independent of one another. In this sense, it seems the data do not report the exact number of unique cases handled by the TERA. For this reason, we say “beneficiaries” as a middleground term in the midst of these archival discrepancies.

¹⁷Recall that the restriction on hours was a maximum of 128 hours per calendar month.

Figure 4.2: Beneficiaries as a percentage of the population



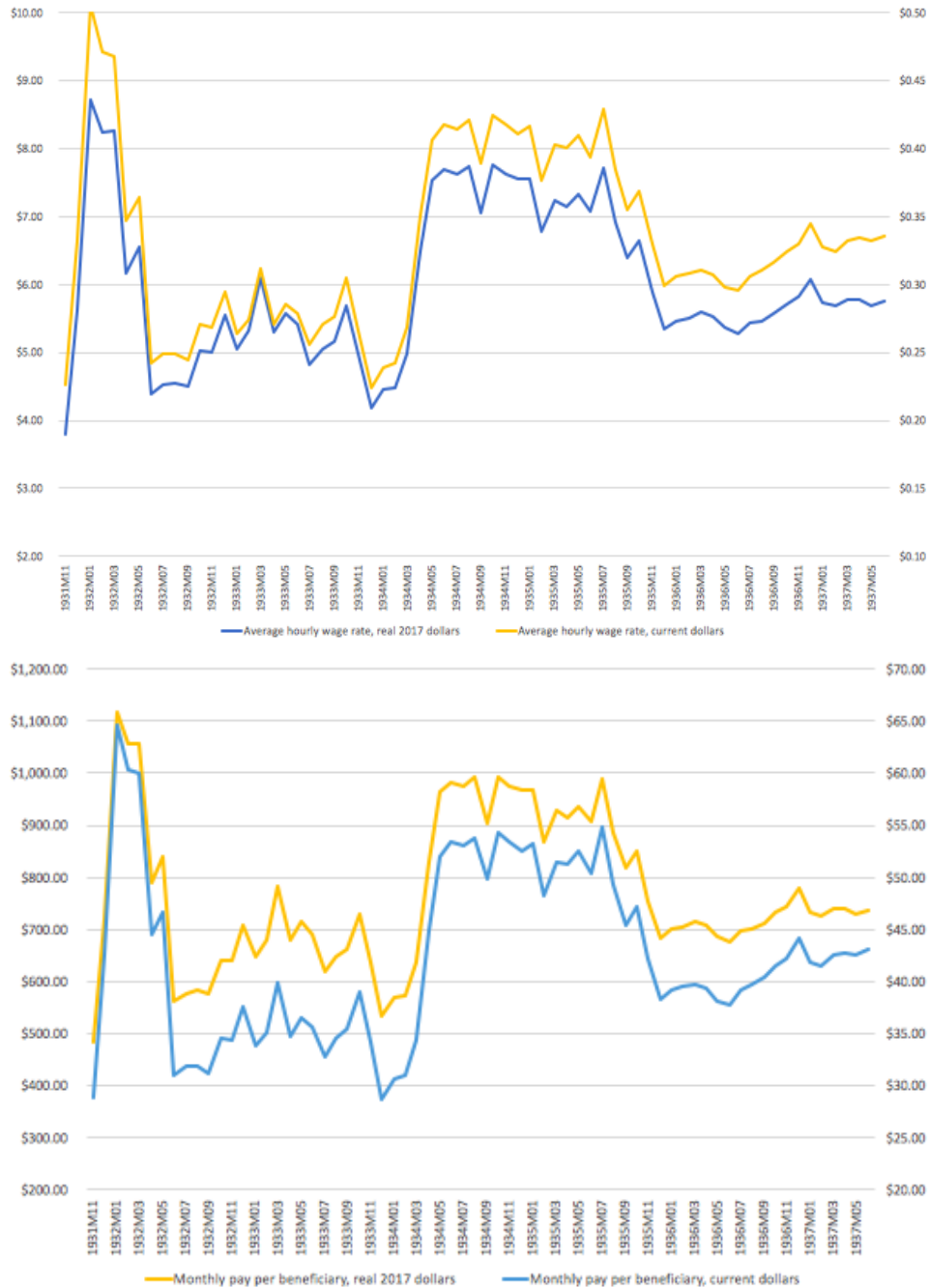
Sources: St. Louis FRED; NYS TERA 1934b and 1937; author's calculations.

operations, experiencing a peak of \$8.72 Jan. 1932 and a low of \$4.18 Dec. 1933. The monthly pay data follow a trend similar to the average hourly wage rate. From 1931-37, the average monthly pay per beneficiary was \$602, \$762.14, \$668.57, \$863.84, \$875.20, \$712.90, and \$733.84, respectively (2017 real dollars). The peak monthly pay was \$1,116 occurring in Jan. 1932. The low was \$534.72 in Dec. 1933. For the sake of comparison, note that work relief beneficiaries were also eligible for home relief. This means that legally, the average monthly pay of \$762.62 could have been supplemented by government-financed regular food orders, rent/mortgage payments, fuel, lighting, clothing, medical and nursing care, and more (see section 1.4.1.2). In short, the benefits offered were generous. Indeed, the average fixed wage for TERA work relief beneficiaries is not too far from today's federal minimum wage (\$7.25).

- The total cost of the TERA was equivalent to 58 percent of the NY State budget.

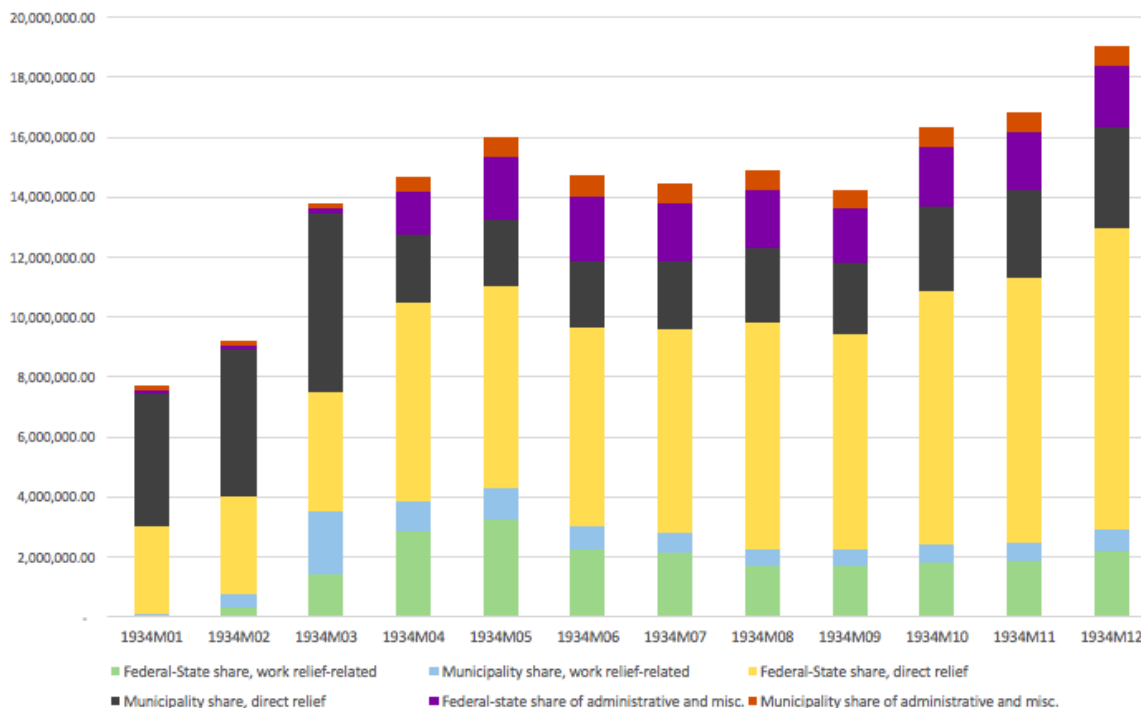
As we discuss later in the econometric analysis section, though a precise estimate of GDP is preferable the data do not exist at the state level for the period. Instead, we calculate the sum of revenue receipts (\$1.72 billion) and the sum of disbursements (\$1.79 billion) for 1932-37 (NYS Comptroller 1938). Afterward we calculate the ratio using the sum of TERA

Figure 4.3: Hourly (top) and monthly (bottom) pay per beneficiary, current and real 2017 dollars



Source: Author's calculations—St. Louis FRED; NBER MacroHistory Database; NYS TERA (1937).

Figure 4.4: Federal-State and Municipality share of reimbursable costs, 1934



Sources: Author's calculations—NYS TERA 1937.

expenditures. It is important to note that the TERA was accounted for in a separate emergency fund, financed by appropriations, federal aid, and modest tax increases (see section 3.4).

- Total TERA expenditures without the CWA were about \$1 billion. These expenditures were divided among the state and federal government so that \$145, \$372, and \$68.8 million were spent on work-relief related, total direct relief, and administrative and miscellaneous costs. Whereas municipal corporations covered \$99.9, 185, and \$24.8 million of those same expenditures, respectively.

The share of costs among direct relief, work-relief related expenditures and administrative and miscellaneous costs are reported in Figure 5.3. The related charges are the sum of all expenditures provided by the form of relief. For example, work-relief related charges is the sum of work relief and reimbursable and non-reimbursable costs for project materials. Throughout the TERA's operations, the federal and state governments expended about \$145, \$372, and \$68.8 million on work relief and home relief-related and administrative and miscellaneous reimbursable expenditures, respectively. Whereas municipal corporations covered roughly \$99.9, \$185, and \$24.8 million of these same expenditures, respectively. The April 1934 NYS reimbursement amendment, increased outlay reimbursements to municipal

corporations from 40 to 75 percent. Afterward, approved charges were reimbursed by 75 percent. The total cost of reimbursable expenditures was nearly \$900 million, of which municipal corporations covered about one third of the charges. Of these charges, direct relief (see chapter 3, footnote 11), work relief-related, and administrative and miscellaneous charges accounted for 62.2, 27.3, and 10.5 percent of costs, respectively.

Policy questions revisited

1. Was the TERA effective? A question traditionally asked about any economic policy is: was the policy effective? This question is too broadly specified. If the question is meant to ask whether or not the policy satisfied its stated goals, then the answer is unambiguously yes. The program was temporary, acting in a situation of emergency. But it provided relief to about 5 million individuals in NY State, for a total cost—or total disbursement into the economy—of roughly \$1 billion.¹⁸ In short, yes.

2. Was the TERA costly? A first pass. Another question traditionally asked about any economic policy relates to its cost—this question is important, but incomplete.¹⁹ The total stated *cost* of TERA was \$1 billion dollars.²⁰ Yet, we have to be careful as to what we mean when we say cost. The precise goal of the legislation was to lessen hardship through providing paychecks to individuals. And since TERA was an income transfer policy, its “cost” also represents its “benefits,” as all sources of funds received were disbursed. In this sense, The TERA program is better seen as a balance sheet where the total liabilities (\$1 billion receipts) are more or less equal the total disbursements (\$1 billion worth of paychecks or transfers).

3. Was the TERA costly? A second pass. A second answer to the question of the cost of TERA is simply to say that cost is but one part of the picture. One has to account for the benefits of the TERA as well, and *then* proceed to a cost-benefit analysis.

¹⁸We insist on the word *total*, as the final report on TERA shows that the 5 million total individuals is achieved by summing up the number of recipients month after month for the duration of the program. Yet it is possible that the same individuals were TERA recipients for several months, bringing the headline *total* number of 5 million down to a lower (unspecified) number of *different* individuals.

¹⁹Another perspective here, outside the scope of the paper, but nevertheless worth inquiring into is the Job Guarantee and Modern Monetary Theory. Consult Tcherneva 2006 and 2012a; Wray 1998 and 2015.

²⁰This is the total cost as stated in the title of the final report on TERA (1937), yet we have reasons to believe that this number is understated by about \$200 million, as the ERB offshoot operating in NYC continued operating after the original TERA program ended in June 1937. Yet, the ERB program was instituted under the broad TERA legislation. We take the total cost of the program to be \$1.2 billion.

4. A first approach to cost-benefit analysis A first, simple, type of cost-benefit analysis carries on the theme of TERA as a pure redistribution policy. Accordingly, any cost of the program is a payment of equal amount, so that the *net* effect is exactly zero—in the same way that a balance sheet balances out. But there is an important provision here: in a pure redistributionist policy, the individuals or institutions providing funds to the program are not the same individuals benefiting from those funds. The sources and uses of funds are different. In particular, the origins of the TERA funds are, as we have seen, in part, those individuals with excess funds—charities or wealthy individuals—while the TERA beneficiaries had little income.

4.5 Assessing policy effectiveness through fiscal multipliers

Thinking about fiscal multipliers. The fiscal multiplier m_F measures the change in economic activity relative to an exogenous change in government spending:

$$m_F = \frac{\Delta Y}{\Delta G_{exo}} \quad (4.4)$$

As such, the multiplier represents by how much economic activity Y changes when an exogenous government spending G takes place, $\Delta Y = m_F \cdot \Delta G_{exo}$. At a first approximation, the disbursement of \$1 billion dollars under the TERA represents \$1 billion that would otherwise not have been spent. Therefore, it represents a net injection of \$1 billion into the NY State economy. In this sense, the fiscal multiplier is one: there is a one-to-one increase in economic activity following an exogenous increase in spending, and $m_F = 1$. Yet while useful, this first approximation is not quite correct. The multiplier can deviate perhaps significantly from unity. Here, three cases are possible:

First, $m_F > 1$. A fiscal multiplier greater than one means that a fiscal injection induces *further* economic activity. In this case, spending beyond \$1 billion. The reason for this is that TERA beneficiaries received an income which will then be spent in part or in totality, meaning that someone else in the economy receives an income that they would otherwise not have received. This additional income can generate further purchases. *The case $m_F > 1$ represents the case of an effective, expansionary fiscal policy.* That is, in the sense that an injection of \$1 billion in the economy will generate *more* than \$1 billion in additional economic activity. In this case the policy is worth it—this is the case of pump-priming.

Second, $m_F = 1$. This is the baseline case outlined above. Here, an additional, exogenous increase in government spending of \$1 billion increases economic activity by exactly \$1 billion.

There are a variety of reasons why this would be the case. For instance, there could be an expenditures multiplier greater than one (as evidenced in the case above) which is thereafter offset by an expenditures “divider” smaller than one (see case below). In particular, the fiscal multiplier is exactly one if the balanced budget multiplier holds (Haavelmo 1945) or if the Ricardian Equivalence theorem holds (Ricardo 1888). *The case $m_F = 1$ represents the case of a neutral fiscal policy.* That is, in the sense that an injection of \$1 billion in the economy will generate *exactly* \$1 billion in additional economic activity.

Third, $m_F < 1$. A fiscal multiplier smaller than one means that the correspondence between fiscal injection and change in economic activity is less than one-to-one. In the present case, this would mean that the additional income received by TERA beneficiaries would be more than offset by, in principle, negative forces. Those “negative forces” are hard to pin down. But in theory, the story would involve some kind of crowding out. For example, this could be crowding out of private investment, displaced by public investment. If the displacement of private investment is greater than the public funds injection, the multiplier would be less than unity. Another case of when a less-than-one multiplier would arise is if the public funds injection is set up as a tax increase on incomes with a higher propensity to consume, in order to finance additional incomes for those with a lower propensity to consume. This set-up would decrease purchases overall, and economic activity would fall despite the implementation of the program. *The case $m_F < 1$ represents the case of an effective, contractionary fiscal policy.* That is, in the sense that an injection of \$1 billion in the economy will generate *less than* \$1 billion in additional economic activity. In this case the policy is *not* worth the implementation.

Overall, it appears from this brief discussion that the value of the fiscal multiplier is an important and appropriate metric to assess the degree of effectiveness of a fiscal policy such as TERA. It also appears that the “first approximation” $m_F = 1$ is possibly invalidated in empirical applications: from the three cases above, the fiscal multiplier can vary from unity. We now consider this point further: what are the difficulties in assessing fiscal multipliers?

Difficulties in assessing fiscal multipliers.

First, there are many factors to account for. There could be crowding out or crowding in. The financing of the program matters, and so do the propensities to consume and to spend. Further external factors, such as changes in the NY State tax rate, possible trade deficits with other states or nations, and the interest rate on borrowed funds, etc. would also matter. The difficulty here is not only that there are many factors to account for—some of which there simply is no data available. The difficulty is also that we do not know which additional factors to account for. This is a problem because omitting an important factor or adding an

irrelevant factor to an estimation can possibly affect the value of the fiscal multiplier itself.

Second, an additional complication in the estimation of the fiscal multiplier relates to the choice of the estimation method. The choice of the statistical technique can, as we shall see, influence the value of m_F .

Third, a further complication arises due to the very definition of the fiscal multiplier. A fiscal multiplier is just that—the change in a response variable following a fiscal impulse. In itself, the value of the multiplier tells us whether or not a given policy was “worth it.” But the more scientific way of assessing the “worth” of a policy is to proceed on the basis of controlled experiments, using counterfactuals. In this case the NY State population would be split in two strictly identical populations—one would benefit from the policy and the other would not. The outcomes would be an apples-to-apples comparison after a certain period of time. This approach is infeasible. At best one could compare the fate of NY State residents (where TERA was implemented) to those of neighboring States (where it was not). Yet, neighboring States also implemented work or home relief policies (see 2.1). Alternatively, one could compare NY State to a State where no such policies were implemented—say, Kansas—but this would not be an apples-to-apples comparison. Indeed, if only because the industrial landscape, population, occupations, demographics, etc. of NYS and Kansas are not strictly comparable. Due to these complications, the route of controlled experiments or a counterfactual analysis was not pursued further.

One final point should be noted. A fiscal multiplier is not exactly a cost-benefit analysis in the traditional sense. By this we mean that, in an ideal world, we would have at our disposal the total cost of the program—the direct cost, the costs of administration/overhead, the opportunity costs, debt-servicing costs, etc.—and would compare this total to the total benefits of the program—such as poverty relief, early death relief, suicide prevention, any positive employment externality, improvements in the quality of life, etc. Yet, this route is steep: clearly it is not possible to accurately quantify the value of each of these. As a result, this approach was not undertaken, except insofar as in our section on the (material) costs and qualitative benefits (see Chapter 3).

In sum, although there are alternative methods of assessing the “worth” of TERA, we restrict ourselves to the analysis of the TERA fiscal multiplier. As we shall see next, such quantitative analysis is already quite complicated by the lack of data and the availability of alternative estimation methods.

Measurement of the fiscal multiplier. The general approach consists in relating economic activity to the spending on TERA relief over time. Let our metric of economic activity be denoted by the letter Y and TERA expenditures by R . The most general form

relating those two variables is $Y = f(R)$. In this formulation the fiscal multiplier is simply the partial derivative of f with respect to G_{TERA} :

$$m_F = \frac{\partial f}{\partial R} = \frac{\Delta Y}{\Delta R} \quad (4.5)$$

From elasticity to multiplier. The elasticity of economic activity with respect to TERA spending is given by

$$e_{Y/R} = \frac{\Delta \log Y}{\Delta \log R} = \frac{\frac{\Delta Y}{Y}}{\frac{\Delta R}{R}} \quad (4.6)$$

The relationship between fiscal multiplier and elasticity can be found by rewriting the definition of elasticity above as

$$e_{Y/R} = \frac{\frac{\Delta Y}{Y}}{\frac{\Delta R}{R}} = \frac{\Delta Y}{Y} \cdot \frac{R}{\Delta R} = \frac{\Delta Y}{\Delta R} \cdot \frac{R}{Y} = m_F \cdot \frac{R}{Y} \quad (4.7)$$

so that “elasticity equals multiplier times share.” Equivalently, “multiplier equals elasticity divided by share”:

$$m_F = e_{Y/R} / \frac{R}{Y} \quad (4.8)$$

The function f . The precise nature of the function $f : Y = f(R)$ is unknown and so is the list of control variables. However the function f can be approximated by a most general linear model of the form

$$\underbrace{\log Y_t}_{\text{response}} = \beta_1 \underbrace{\log R_t}_{\text{impulse}} + \underbrace{\sum_i \beta_i X_{i,t}}_{\text{controls}} + \underbrace{\beta_o + \beta_1 t + \sum_{j>i} \beta_j D_{j,t}}_{\text{deterministics}} + \varepsilon_t \quad (4.9)$$

The characteristics of the model are as follows:

- The model is specified in natural logarithms as both economic activity and TERA spending features a variance proportional to time.

- The model is linear in its variables: no higher-order terms for the trend or TERA variable were introduced.²¹
- The model accounts for n control variables $X_{i,t} = (x_{1t}, \dots, x_{nt})'$. The control variables are discussed below.
- Great care was taken to specify a full set of deterministics: constant β_0 , trend t and dummy variables D_j . Four kinds of dummy variables were included to account for extraordinary events.²²
- Equation (4.9) does not account for lagged effects. Lags of the variables R and X_i could be introduced, thereafter giving us a complicated model. In all likelihood the effect of the TERA on economic activity was partly immediate and partly delayed, especially if there is a multiplier effect. For this reason it is important to introduce lags of the variables to capture the whole dynamics of the process Y , e.g. $Y = f(R_t, R_{t-1}, \dots)$. The model in equation (4.9) is written for notational simplicity but the estimation methods used in this section do account for lagged effects (see methods section 5.3).

The coefficient of interest is β_1 , which is the partial derivative of $\log Y$ with respect to $\log R$ in equation (4.9). Thus, β_1 represents the elasticity of economic activity with respect to TERA spending, i.e. $\hat{\beta}_1 = \frac{\partial \log Y}{\partial \log R} = e_{Y/R}$. By estimating equation (4.9), one can back out the estimate of the fiscal multiplier as²³

$$m_F = \hat{\beta}_1 / \frac{R}{Y} \quad (4.10)$$

²¹The presence of a quadratic time trend was systematically rejected across specifications on statistical grounds. This is probably the result of taking the variables in logs. The presence of a squared G_{TERA} term was not considered, as it does not make much sense.

²²Those events were detected in the regression residuals as spikes significant at the 1 percent level ($\hat{\sigma}_\varepsilon > 2.6$). The four types of dummy variables are “blip” dummies $(0, \dots, 0, 1, 0, \dots, 0)$, “step” dummies $(0, \dots, 0, 1, \dots, 1, 0, \dots, 0)$, transitory dummies $(0, \dots, 0, 1, -1, 0, \dots, 0)$ and seasonal dummies.

²³Auberbach and Gorodnichenko 2012, among others, also use estimated elasticities to back out the value of the multiplier.

Chapter 5

A quantitative assessment of TERA

Chapters 3 presented the qualitative achievements of the TERA. Chapter 4 provided a theoretical guide for the legislation, together with simple statistics, and a discussion on fiscal multipliers. In what follows, we formulate research questions derived from economic theory and test them with econometric methods. First, we address the neoclassical proposition which posits that recovery in the labor market—and the broader economy—comes from lower real wages. This proposition is addressed in section (5.1). Second, since we do not find much support for this proposition, we devote much of our time to investigating the Keynesian model. Third, we discuss the dataset and econometric methods. Fourth, we explain further properties of the data and the cointegrated Vector AutoRegression (VAR) model. Fifth, we report results. As we discussed in the introduction, there is a shortage of studies assessing the impact of fiscal policies during the Great Depression, at least relative to the number of studies insisting on the role of monetary policies. Moreover, to our knowledge, there is currently no economic analysis of the TERA. The present section aims at filling this literature gap by providing an attempt at a quantitative analysis of the program.

5.1 Did real wages fall when the economy recovered?

The theory section presented the prototypical neoclassical model where markets clear due to changes in prices. In particular, the labor market will clear any existing unemployment by a reduction in real wages. The proposition that employment is negatively related to real wages is empirically verifiable for factories—seemingly the only sector for which data exists. Yet, as we will discuss further below, the industrial sector was a major strength and an important source of employment for New York State in the 1930s.

The NBER’s MacroHistory database presents two series for the industrial sector: an index of factory payrolls (employment) and nominal average weekly earnings in representative

factories. This data is available monthly for New York State. Real average weekly earnings can be computed using the BLS consumer price index for all items (CPI). The CPI is also available monthly for New York State for the period of interest, but some data points are missing. As a result, the CPI was first interpolated using NY-specific data series on prices (see section 5.3 and Appendix 1). All three series have been seasonally adjusted using the Census' X-13 method. Subsequently, the real wage can be calculated as the ratio of the nominal average earnings to the CPI, and the result can be plotted against the employment (payroll) index. Figure (5.1) presents the result.

The top panel of Figure (5.1) presents striking evidence that employment is not a negative function of the real wage. The figure depicts a positive correlation.¹ This new data for the whole United States is for the manufacturing sector and uses a direct number of jobs labeled "employment" as well as real weekly earnings. The top panel (NY State) and the bottom panel (United States) depict the same picture: a strong, positive correlation between the level of employment and the real wage. Figure (5.1) casts serious doubt as to the adjustment process in the neoclassical labor market. In other words, the economy stabilized in 1932 and started growing strongly from 1933 onward until 1937. But this stabilization and recovery process cannot be explained by falling real wages because real wages increased.²

The fact that the neoclassical model clashes with the evidence is no proof that the recovery from the Great Depression is Keynesian. At this stage we depart from the neoclassical model and focus on alternative hypotheses able to explain the economic recovery of 1932–1937.

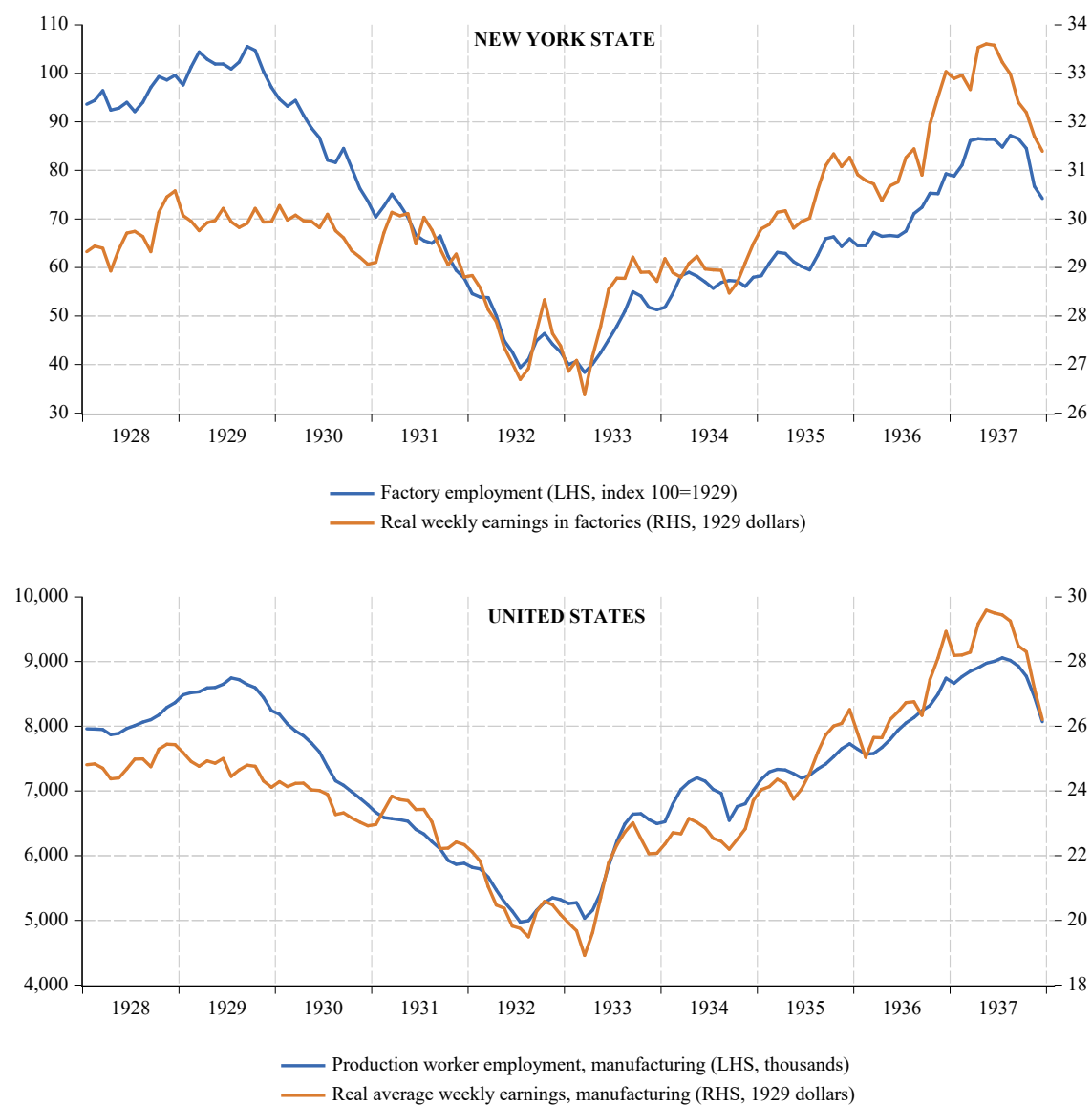
5.2 Formulating alternative theory-derived hypotheses

Our description of the TERA legislation and the economic theory overview conducted allows us to be more specific as to the research questions that need to be asked. In this section we note data limitations that make certain endeavors impossible and propose further consideration of the private employment multiplier. As we shall see, the traditional government spending multiplier is not suitable to the TERA and is intractable in the present case due

¹This result for New York State was so striking that we double-checked this evidence using data from the same sources (MacroHistory and BLS) but this time at the national level (see Figure 5.1, bottom panel).

²Another possible source of growth in the neoclassical model is productivity improvement. Productivity did indeed grow at a tremendous pace during the 1930s (Gordon, 2010). However there are two problems with the idea that the recovery was productivity-induced. The first one is that productivity improvements are typically mentioned in the context of the neoclassical model when the focus is the long period (Solow, 1956); yet we are dealing with a very short period in the present context. The second problem is that, although productivity shocks are typically thought to explain much of economic growth in the long-run neoclassical model, they are likely to have detrimental effects in the short run and reduce employment—for instance, using labor-saving technologies. Yet we observe a tremendous resurgence of employment in the short period under consideration.

Figure 5.1: Employment and real average weekly earnings



Sources: NBER MacroHistory and BLS.

Notes: see text.

to the lack of data. We propose that the TERA promoted NY State's economic recovery. More precisely, TERA spending induced job creation in the private sector. In what follows, we provide a theoretical justification for this proposition.

The logic of the employment multiplier. We start by specifying the linkages through which relief spending could induce private employment. The logic is straightforward: an economy in recession or depression economy suffers from a downturn in output and employment. As a result, the economy operates below capacity, leaving excess capacity in labor and capital. When production is depressed, incomes are depressed too. Certainly, some individuals lucky enough to keep their jobs in the downturn could see wage stagnation, but once the missing incomes of the unemployed are factored in, it is clear that average incomes fall during a downturn. This point is well pictured in Figure (5.1) where we observed a fall in real average weekly earnings during the Great Depression's downturn. This lack of incomes will manifests as a lack of consumption: this is the basic premise of the aggregate consumption function. Finally, if there is little consumption, there is no incentive for factories to invest and thereby create jobs. Investment falls in recessions/depressions. It probably falls further as firms try to maintain some profits or profit margins, and also because of the induced-investment accelerator effect (Samuelson, 1939). This causal chain can and did turn into a downward spiral in the United States for the years 1929–1933.³

In this scenario, the goal of economic policy should be to break the cycle. Monetary policy can be used to provide cheaper borrowing, but monetary policy can have limits when firms do not see (or foresee) an increase in sales. As previously noted, TERA was a jobs-and-income transfer policy. Theoretically speaking then, the TERA was the right kind of policy to break the downward spiral. By creating jobs and instituting home relief, the program generated incomes and spending at a time when the economy was falling precisely because of lack of incomes. The TERA could, in effect, stabilize the economy or even redirect the economy towards a virtuous cycle. This would consist of additional consumption, additional investment and additional jobs that would otherwise not exist. In this sense, there is a logical connection between the program TERA and the recovery. Indeed, the timing of the TERA's official operations (November 1931) and the stabilization of the economy (see Figure 5.1) are consistent. Yet, though there are many other factors, the economy relapsed around the same time the TERA dissolved (June 1937).⁴

³A similar downward spiral is described in a slightly different context by Irving Fisher (1933).

⁴The New York City offshoot of TERA, the ERB, continued operating for an additional year alone, with overall funds about halved compared to when TERA was in full operation.

The impractical fiscal multiplier. The TERA was a fiscal policy. The traditional way of assessing the impact of a given fiscal policy is, as we explained before, through the concept of the fiscal multiplier. In this line of reasoning the question is simply stated as: “what is the fiscal multiplier of TERA?” The value of the fiscal multiplier would certainly be useful to know, but it cannot be calculated due to data limitations. The fiscal multiplier measures the change in economic output Y due to an exogenous change in government spending G :

$$m_F = \frac{\Delta Y}{\Delta G_{exo}} \quad (5.1)$$

We managed to access and digitize monthly spending data for TERA (see section 5.3), so that the denominator is known. However, despite our best efforts, we could not find any reliable data for the size of the NYS economy. Real GDP does not appear to be available, let alone in a monthly frequency. The second best option would be to use the industrial production index as a proxy for economic activity, as it is customary to do in the literature for the Great Depression era. Yet, the industrial production index is not available for New York State. Other possible metrics from the MacroHistory dataset were considered, but none were found satisfactory.

There are further difficulties which made us abandon the route of fiscal multipliers altogether. Chief among them are imprecise or variable estimates. Consider the case of the flurry of multiplier studies since the 2008 recession.⁵ While there seems to be a consensus that the multiplier for government spending is arguably above unity, say $m_F = 1.5$, there are a few studies finding multipliers below unity and a few studies finding a multiplier above two. In addition, the standard errors of the multiplier estimates are rarely reported, so that even if the “true” multiplier was 1.5, this estimate could not be significantly different from unity. Multipliers are notoriously hard to estimate properly. Their estimated value often depends on the econometric model chosen. Another difficulty in calculating the multiplier in the case of the TERA is that the policy was, for the most part, budget-neutral. This means that a full picture of the effect of TERA on economic activity would require a calculation of the effect of additional government spending as well as the effect of higher taxation, all in a model with two classes (lower and higher incomes). Three such models come to mind, all interrelated: (1) the balanced-budget multiplier, (2) the idea that higher income individuals have a lower marginal propensity to consume while lower incomes have a higher MPC, and (3) the prototypical differentiation between the government spending multiplier and the tax multiplier. All three models indicate that we should expect output to increase following a balanced-budget measure. In all, we could not proceed to estimating fiscal multipliers be-

⁵For example, see Ramey (2011)

cause of the lack of data on real GDP for NY State, but theory arguably suggests that, if we could, the multiplier could be above unity.⁶

The private employment multiplier route. Given the lack of GDP data for NY State for the period under consideration, we searched for alternative metrics of economic activity. The strength of the NY State economy could be assessed using a measure of the output gap, inventories, a measure of unused industrial capacity, or with the unemployment rate. Yet, no such data series exists for the period under consideration for NY State. Another possible proxy variable for economic activity is employment; a high number of job creation is an indication of higher economic activity and vice-versa. Similarly, there is no employment data series for NY State for the period under consideration.⁷ However, the MacroHistory database does provide an index of factory payrolls in NY State. The advantage of this data series is that it is available at a monthly frequency since 1928 and covers NY State industries for the whole period under which TERA operated (1931–1937). Another advantage is that the MacroHistory database presents data for the sister concept of weekly average earnings in factories, which will prove useful later. The drawback is that this is only a proxy variable of total employment in NY State, as this data series is only valid for factory employment.⁸ However, the State of New York was the premier, leading State of the Union in terms of industry. In this sense, factory (or industrial) employment is likely the best proxy for total employment.⁹

Thinking about an employment multiplier. The employment multiplier concept can be explained with reference to the traditional fiscal multiplier, as presented above. Equation (5.1) states that the multiplier for, say, government spending, is the response (i.e. change) in the level of real GDP following an exogenous impulse (i.e. change) in government spending. As such, the traditional fiscal multiplier answers the question of how much output will be generated from a given change in government purchases. To the extent that output is $Y = C + I + G + X - M$, the fiscal multiplier can be rewritten as

⁶This is based on economic reasoning, not empirical findings, as there are few studies on the fiscal multiplier during the Great Depression, and virtually no study (to our knowledge) of balanced-budget multipliers within this context.

⁷The source of employment data for the United States is the employment survey conducted by the Bureau of Labor Statistics (BLS). This data series only starts in 1939, when the TERA experiment was already dismantled.

⁸Another drawback is that the data is presented in index form, which gives us no clue as how many jobs there were.

⁹Most empirical investigations of the Great Depression use industrial production. But since production is not available for New York State, we fall back on industrial employment to gauge the strength of the NY economy.

$$m_G = \frac{\Delta Y}{\Delta G_{exo}} = \frac{\Delta(C + I + X - M) + \Delta G}{\Delta G_{exo}} \quad (5.2)$$

or, equivalently,

$$m_G = 1 + \frac{\Delta Y_{private}}{\Delta G_{exo}} \quad (5.3)$$

where $Y_{private}$ is the real output of the private sector, i.e. $Y_{private} = C + I + X - M$. The government spending multiplier is one plus the response in private sector economic activity following a change in government spending. If the private and the government sector are different from one another, completely separated entities, there is no response in private economic activity generated by government spending. This means that the multiplier is $m_G = 1$. But if private sector and the public sector are intertwined, the private sector will respond to changes in public spending and $\frac{\Delta Y_{private}}{\Delta G_{exo}}$ will be non-zero. Neoclassical economists may point to the fact, for example, that government spending crowds out private investment. This leads to the conclusion that the private sector will contract following increased government purchases. The result is a government spending multiplier $m_G < 1$ with the consequence that undertaking government spending is not worth it. Whereas Keynesian economists may retort that government spending crowds in the private sector. The idea, common to all studies on multipliers, is that additional government spending in a depressed economy is an additional income for someone else in the economy; this additional income can generate further purchases which would otherwise not take place.¹⁰ Note that empirical studies on the value of the multiplier have a central estimate of $m_G = 1.5$, which tends to support the Keynesian argument—notwithstanding the criticisms of calculated multipliers noted above. Finally, note that the traditional government spending multiplier $m_F = \frac{\Delta Y}{\Delta G_{exo}}$ is calculated using the ratio of the variables ΔY , ΔG_{exo} measured in real terms (of course using the same deflators and index base year). This multiplier is unit-less.¹¹

The employment multiplier works in the same way as the traditional multiplier just reviewed. The employment multiplier measures the change in total employment (the response) triggered by a change in government spending (the impulse). Let N denote the level of total employment—that is, the sum of private employment and TERA employment such as $N = N_{private} + N_{TERA}$. Let R be the amount of relief (work and home relief combined) under TERA. The employment multiplier is given by

¹⁰The Keynesian effect on private investment is that of the accelerator as presented by Samuelson (1939) and already discussed in the theory section.

¹¹For instance, we would divide ΔY expressed in constant 1937 dollars by ΔG_{exo} expressed in constant 1937 dollars too, so that the result is unit-less.

$$m_N = \frac{\Delta N}{\Delta R} = \frac{\Delta N_{private} + \Delta N_{TERA}}{\Delta R} \quad (5.4)$$

Equation (5.4) states that the employment multiplier is the sum of the private employment multiplier $\frac{\Delta N_{private}}{\Delta R}$ and the term $\frac{\Delta N_{public}}{\Delta R}$. The latter can be further simplified: as the TERA was a jobs-and-incomes program, it must be that the total amount spent on the program can be rewritten as $R = \bar{w} \cdot N_{TERA}$ where \bar{w} is the average real wage rate. Deriving with respect to time, $\Delta R = \bar{w} \cdot (\Delta N_{TERA})$ so that $\frac{\Delta N_{TERA}}{\Delta R} = \frac{1}{\bar{w}}$. For instance, TERA beneficiaries received $\bar{w} = \$6$ per hour in 2017 dollars, on average throughout the duration of the program, so that $\frac{1}{\bar{w}} = \frac{1}{6} = \text{constant}$. Overall, we have

$$m_N = \text{constant} + \frac{\Delta N_{private}}{\Delta R} \quad (5.5)$$

Equation (5.5) tells us that the traditional fiscal multiplier finds a sister concept in the employment multiplier.

Using the employment multiplier. We see that the major benefit of the employment multiplier is to point to the importance of the private employment multiplier $\frac{\Delta N_{private}}{\Delta R}$.¹² In this sense, equation (5.5) tells us to look into the effect that relief had on private employment.

5.3 Data and econometric methods

So far we presented the general framework and issues related to measuring fiscal policy effectiveness. This section presents the data, its construction and its properties, a brief overview of the econometric methods relevant to the data at hand, as well as results. We begin with a general note about the dataset and estimates of a GDP Deflator and CPIs for NY State. Afterwards, to assess the value of the fiscal multiplier m_F we discuss the time series of “economic activity” Y_t and of spending on the TERA program R_t :

The dataset

NYS data between 1931 and 1937 is limited; data on the TERA was only available in archives. Through resources made available by the Franklin Delano Roosevelt Presidential Library and its FRANKLIN Database, HathiTrust Digital Library, and physical copies of manuscripts from Albany and nearby libraries, we digitized all TERA data used. The remainder of the

¹²This is similar to the traditional fiscal multiplier which pointed to the importance of the effect of government spending on the *private* sector.

data was collected from the BLS, the NBER Macrohistory Database, and the St. Louis FRED.

The GDP deflator for NYS is not available for the 1930s and 1940s, making comparisons of time series over time hazardous. Since TERA was short-lived, we needed a monthly price indicator for a sufficient number of observations. Using all data available, we calculated the monthly indicator for NYS for the period 1925-1938. The BLS provides CPI information for this time and place, and there are price time-series data available from the NBER's MacroHistory database.

The BLS also provides CPI information on “all items,” on food and on rent for the NY metro area.¹³ None of those data sources are perfect. The CPI data feature many missing data points for this period; the NBER data are not general enough to be aggregated into a deflator. For example, the BLS data is available semi-annually at the beginning of the sample, quarterly at the end and erratically in between. Just as well, there is no producer price index (PPI) for this time and place. Instead, there is only a national PPI published by the BLS, together with NYS materials costs published in the MacroHistory database. By crossing information from these two sources, we estimated a monthly GDP deflator for NYS.

We interpolated the missing BLS data with monthly indicators available from the NBER MacroHistory database.¹⁴ The MacroHistory database features NYS prices for thirty-eight series. These data have complete information on our sample. There is one interpolator for housing rents, three for fabric/clothing, two for energy/heating, fourteen for materials/producer price index and fourteen for food (see Appendix 1 for details).¹⁵

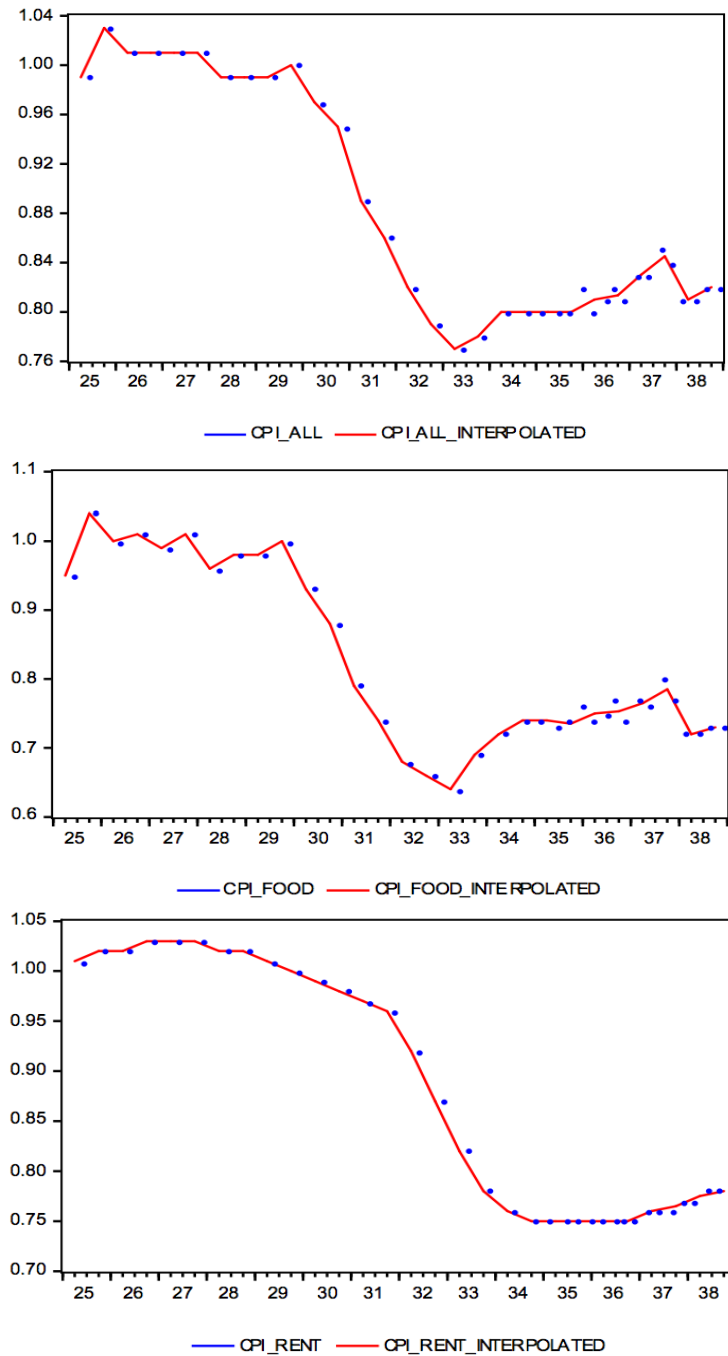
Each price series was given equal weight by rebasing 100=1929M12 and taking an unweighted average across each category of product. This led to four time-series: the housing rents interpolator, the PPI interpolator, the clothing/fabric interpolator, the energy/heating interpolator and the foodstuffs interpolator. These MacroHistory interpolators are available on 1925M01—1938M12 for NYS and were used to calculate the GDP deflator. We used the the Chow-Lin (1971) interpolation technique, a choice motivated by Gordon and Krenn (2010). We replicate the approach of this paper at the NYS level. The Chow-Lin method is a regression-based interpolation technique that finds values of a series x_t by relating one or more higher-frequency indicator series Z_t to a lower-frequency benchmark series through the following regression:

¹³That is, “New York-Northern New Jersey-Long Island, NY-NJ-CT-PA.”

¹⁴Put concisely, data interpolation is a statistical method of estimating new data points between known data points.

¹⁵The PPI, for materials was, for the most part, in wholesale prices. For food, the PPI was mostly listed in retail prices.

Figure 5.2: NYS/ NYC metro CPI interpolations



Source: See text, author's calculations.

$$x_t = Z_t\beta + \alpha_t \quad (5.6)$$

Where β is a vector of estimated coefficients and α_t is a random variable with mean zero and covariance matrix V following an AR(1) process $\alpha_t = \rho\alpha_{t-1} + \varepsilon_t$.

The steps were as follows:

1. **CPI Conversion to the lowest frequency.** Each of the three CPIs (food, rents and “all items”) were converted to the lowest frequency—that is, semi-annual data—by taking the average of observations when necessary.

2. **CPI interpolation.** We then converted each semi-annual CPI to monthly frequency using a Chow-Lin (1971) interpolation method. More precisely: The rent CPI was interpolated using a single regressor (NBER’s “Value of plans for New Buildings in Manhattan”). To capture the price of food in upstate NY, we interpolated the food CPI using the average of thirteen foodstuffs’ prices for NY and the “Index of Retail Prices of Food at Home for United States.”

3. **Relative weights in CPI “all items.”** Regressing the food and rent CPIs on the “all items” CPI provided us with standardized coefficients of 70 percent and 30 percent, respectively.¹⁶ We interpret this information to mean that the “all items” CPI consists of 70 percent food prices and 30 percent rent prices for this time period. Energy and clothing/fabric turned out insignificant. We take this to mean that those items are better thought of as producer prices (PPI) instead of consumer prices (CPI).

4. **Calculation of the CPI “all items.”** We calculated the “all items” CPI as 70 percent average food prices and 30 percent average housing rents prices.

5. **Calculating the GDP deflator.** We took the NYS GDP deflator as consisting of 80 percent CPI and 20 percent other items. We did this to mimic the distribution of income at that time, consisting of labor compensation and returns to ownership of roughly those magnitudes.¹⁷ The 20 percent of “other items” consists of the unweighted average of the fourteen producer prices, three fabric/clothing prices and two energy/heating prices.

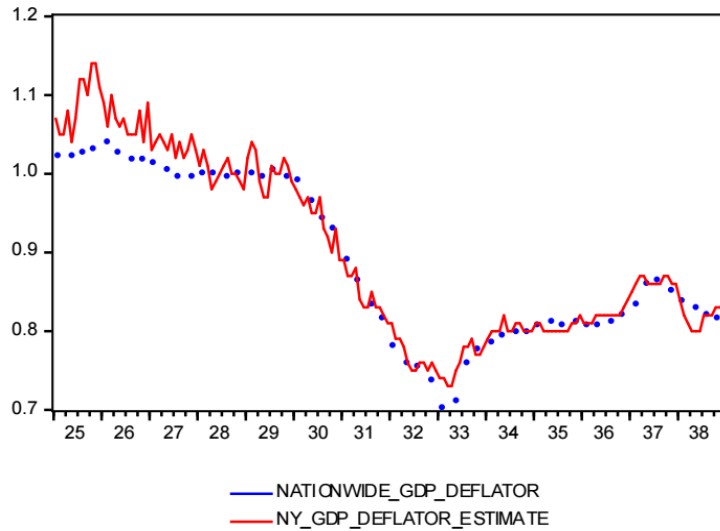
The resulting monthly CPI price index for NYS—NYC metro is plotted on Figure 5.2 along with the nationwide CPI, available at the BLS.

The data on relief R_t . The data on total relief spending R_t is available in the final report on the program. The Report provides amounts spent monthly in current dollars from the inception of the program in November 1931 to June, 1937. One of many difficulties with this

¹⁶This is true on untransformed or data (N=36 observations) or interpolated data (N=168 observations). Both estimated coefficients are significant at the 1 percent level using HAC standard errors. $R^2=0.97$.

¹⁷A regression of the implicit price deflator for GDP on the CPI and PPI (all in logs) for the postwar period confirms those estimates.

Figure 5.3: NYS GDP deflator estimate



Source: See text—BLS and St. Louis FRED; author’s calculations.

data is the fact that the Report is for the TERA legislation itself. Yet, the TERA legislation enabled the creation of ERBs, who, in cases like NYC, received funds from the State, but also received funding from additional sources of funds (see section 3.4). Comparing spending on TERA and spending on ERB, we find that TERA spending was always the highest until TERA funding dwindled in 1936. To arrive at a meaningful time series of relief R_t , we avoided double-counting the transfers from one program to the other,. Also, we take into account additional spending undertaken by the ERB. All this considered, our recourse was taking the monthly maximum of each program: $R_t = \max_{\forall t}\{R_{TERA,t}, R_{ERB,t}\}$.¹⁸ This approach yields a monthly time series for relief effort in NY State from November 1931 to June, 1938.

Data on economic activity Y_t . The data on “economic activity” Y_t is trickier because the concept is imprecisely defined and because of the lack of data. Ideally, we would like to have monthly estimates of GDP in New York State for 1931–1938, but as stated before, the data do not exist.¹⁹ The closest proxy to “economic activity” is the amount of tax receipts for the NYS, which we were able to find in the annual report of the NYS Comptroller 1938. However this series is available only nominal and annually. To sidestep this, we converted the tax data to real 1929 dollars, using the method described in the next paragraph. After, we interpolated this real annual tax data with a common indicator of economic activity:

¹⁸Conceptually speaking then, if the two programs are represented by circles in a Venn diagram, we avoided double-counting the intersection and considered the perimeter only

¹⁹One has to remember that National Accounts and their rules to calculate GDP were only starting to emerge thanks to the work of Simon Kuznets and collaborators are the NBER.

monthly industrial production.²⁰

5.4 Data plots and the cointegrated VAR model

Chapter 4 and section 5.1 explained the argument that real wages must fall to clear the labor market in full detail. Yet, the evidence showed that real wages and employment stabilized and then grew together hand-in-hand. We can make sense of this positive correlation using a Keynesian argument that emphasizes the TERA’s spillover effect—this can be measured in terms of the private employment multiplier $\frac{\Delta N_{private}}{\Delta R}$.

Data sources The data for private employment is the “factory payrolls” data series from the NBER MacroHistory database. Again, we take factory payrolls to be a good proxy of the level of employment in the whole private sector. We split relief spending data into two components: spending on home relief R_{home} and spending on work relief R_{work} , with $R = R_{home} + R_{work}$.²¹

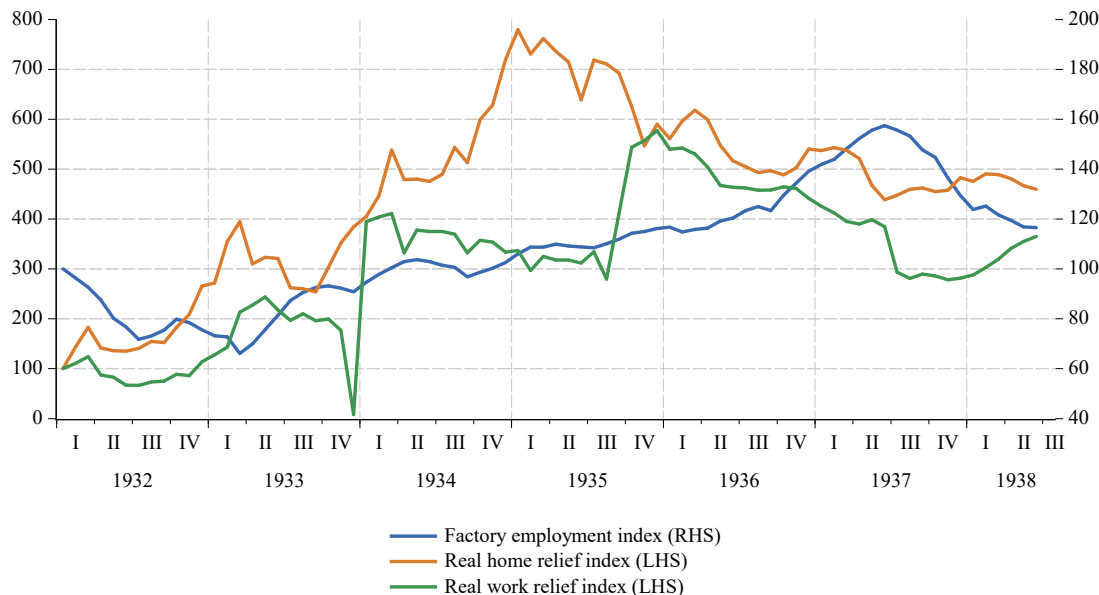
The effect of one can be large or small, significant or not significant. We denote this set of three variables of interest by Y_t , $Y_t = [N_{private}, R_{home}, R_{work}]'_t$. The employment variable is available as an index and represents a quantity of occupations filled. The relief variables are transformed from their nominal values in the primary sources to real values expressed in 1937 dollars using the CPI deflator discussed previously. For added comparability each data series is seasonally adjusted using the Census’ X-13 method and is transformed in an index with a common base of 100 in January 1932. Such data is available at monthly frequency continuously from January 1932–June 1938.²² The three series $Y_t = [N_{private}, R_{home}, R_{work}]'_t$ are represented in Figure 5.4.

²⁰Another hurdle lies in the fact that there is no industrial production series available for *New York State* specifically, and as a result we used the *national* industrial production index from the Federal Reserve. The extent of this limitation is possibly only minor, as the economic or industrial conditions in NY State were probably closely related to the national economic conditions. The interpolation of the annual tax data using the monthly industrial production index was carried out using the Chow-Lin interpolation procedure, detailed elsewhere in this project.

²¹This distinction is introduced because we do have such a breakdown available in the primary sources, but also because it may be the case that home and work relief did not stimulate economic activity in the same way.

²²The sample is trimmed at the start of the TERA program because of the volatility of observations; the program starts in November 1931 and our sample starts in January 1932. Likewise the sample is extended past the official end of TERA in June 1937 until June 1938, since the New York City offshoot of TERA, the ERB, continued existing for an additional year. Note that the data on relief accounts are for both the TERA and ERB programs. This was not without causing some headaches, as the TERA and ERB each produced independent final reports. The difficulty lies in knowing whether or not relief by the NYC ERB is counted in TERA and vice-versa. In order to avoid double-counting relief expenditures, we took the maximum dollar amount spent under either TERA or ERB for each month.

Figure 5.4: The data series



Data properties Since the data is presented in index form for compatibility purposes, one cannot directly compare magnitudes—this was done in Chapter 5. One can, however, compare trends and make related observations. The trends in the two relief expenditures variables are broadly similar except from mid-1934 to mid-1935. Until mid-1934, the relief programs are ramping up, and private employment stabilizes and eventually grows. After mid-1935, spending on relief programs starts to decrease slowly as the economy and private employment gathers steam.

Overall, Figure (5.4) presents interesting trends: there seems to be a correlation between relief spending and private employment, but the pattern is not clear. Only a thorough econometric observation can determine whether or not relief spending is significantly correlated with employment. Two further observations ought to be made. The first is that the data have many abrupt changes, particularly work relief at the end of 1933 and in October 1935. Those abrupt changes will translate into observational outliers in the econometric work and they should be duly captured by dummy variables. Without this, coefficient estimates will be heavily biased. The second is that the series are persistent trending variables. As is customary with real spending variables and employment data, the natural logarithm of the data series will need to be taken. The high persistence of the data series means that the data is clearly non-stationary—that is, each data series features a unit root or, equivalently, is better thought of as an $I(1)$ process. The nonstationarity of the data implies that two

types of estimation are possible: using standard OLS on differenced data, so as to remove the unit root and the problem of autocorrelated residuals or using nonstandard cointegration techniques.²³

The cointegrated VAR model The Vector AutoRegression (VAR) model is less of a standard model in applied work. But the theory and practice of the cointegrated VAR is otherwise well-known (Johansen 1996 and Juselius 2006). Let $Y_t = [Y_{1t}, \dots, Y_{pt}]'$ be the set of p variables of interest. The VAR(k) representation is given by

$$Y_t = \Pi_1 Y_{t-1} + \dots + \Pi_k Y_{t-k} + \Phi D_t + \mu + v_t \quad (5.7)$$

where D_t is a vector of deterministic variables, μ a constant and the Π_i, Φ, μ matrices are freely estimated. Equation (5.7) is provided in matrix form. It states that each variable in Y_t is regressed on its own past values as well as on the past values of the remaining variables in Y_t . This means that private employment $N_{private,t}$ is modeled using its own past values, as well as the past values of work and home relief. Equation (5.7) thus provides a system of stacked equations. Assuming that the errors v_t are normally distributed with mean μ and variance 0, and that $\Pi_1 = \alpha\beta'$ has reduced rank such as $1 \leq rk(\alpha\beta') < p$, equation (5.7) can be rewritten in its reduced, error-correction form (see Johansen 1996) as

$$\Delta Y_t = \underbrace{\alpha \beta' Y_{t-1}}_{\text{long run}} + \underbrace{\sum_{i=1}^{k-1} \Gamma_i \Delta Y_{t-i}}_{\text{short run}} + \underbrace{\tilde{\Phi} D_t + \mu_0 + \mu_1 t}_{\text{deterministics}} + \underbrace{\epsilon_t}_{\text{error}} \quad (5.8)$$

where $\Gamma_i = -\sum_{j=i+1}^k \Pi_j$ and $\Pi = \sum_{i=1}^k (\Pi_i - I_p)$, where I_p is the $p \times p$ identity matrix. Equation (5.8) is most general and allows for the deterministic components $\mu_0 = \alpha\beta_0 + \gamma_0$, $\mu_1 = \alpha\beta_1 + \gamma_1$, respectively a constant and a trend, to be restricted to the cointegration space $sp(\beta_\perp)$ or not. As such, equation (5.8) is just a rewriting of the system of stacked equations in equation (5.7). Here, an interesting point in proceeding to this rewriting is that equation (5.8) isolates different components: a long-run or “levels” component, a short-run component, deterministic and an error term. Of those, the long-run part $\beta' Y_{t-1}$ is the most interesting.

The rank $r = rk(\alpha\beta')$ has decisive implications since it splits the data into r stationary directions and $p - r$ non-stationary directions (the unit roots or “common trends” of the

²³The presence of a unit root is very common for macroeconomic time series. Intuitively, unit roots are present when, in the regression $x_t = \rho x_{t-1} + \text{deterministics} + \varepsilon_t$, the coefficient ρ is unity. The presence of unit roots in the data creates a spurious regression problem, whereby the R^2 statistic is inflated, the residuals are not random noise, the Durbin-Watson statistic is very low, and the estimated parameters are spurious.

model).²⁴ The stationary and non-stationary directions separate a long-run structure from a short-run structure within the cointegrated VAR model. This is better seen on the moving average form in equation (5.9), which is similar to a trend/cycle decomposition (Beveridge and Nelson 1981):

$$Y_t = \underbrace{C \sum \epsilon_i + C\mu t}_{\substack{\text{nonstationary} \\ \text{(trend)}}} + \underbrace{C^*(L)\epsilon_t}_{\substack{\text{stationary} \\ \text{(cycle)}}} + \underbrace{\tilde{Y}_0}_{\substack{\text{initial} \\ \text{conditions}}} \quad (5.9)$$

where $C = \beta_\perp (\alpha'_\perp \Gamma \beta_\perp)^{-1} \alpha_\perp$ is the long-run impact matrix of shocks, $\Gamma = I_p - \sum_1^{k-1} \Gamma_i$.

Illustration The long-run part $\beta'Y_{t-1}$ —or cointegrating relationship—is most interesting for the following reason: as indicated previously, a first estimation option in the presence of non-stationary data consists in differencing the data. However, this step is not necessary in the cointegrating VAR model, and this makes a world of difference. For example, of the rank in our 3-variable system is one ($r = 1$), and recalling that we ought to take the data series in natural logarithms, the cointegrating relationship would be

$$\ln N_{private} \pm \beta_1 \ln R_{home} \pm \beta_2 \ln R_{work} + \varepsilon^{ML} \quad (5.10)$$

Equation (5.10) is stationary by construction so that $E(\varepsilon^{ML}) = 0$. This means that the estimated coefficients $\hat{\beta}_1$ and $\hat{\beta}_2$ represent the elasticities of private employment with respect to home and work relief, respectively.

Statistically speaking, the cointegrating relationship acts as an attractor set along which the variables are pushed, and the deviations from the cointegrating relationship are captured by the short run dynamics as well as the adjustment coefficients α_i —the latter acting as pulling forces towards the attractor set $sp(\beta_\perp)$. The cointegrated VAR model’s structure allows us to discriminate between the pulling and pushing forces (see weak exogeneity tests below).

Economically speaking, the cointegrating relationship resembles a production function where the usual inputs are replaced by actual expenditures. This “expenditure function” defines $sp(\beta_\perp)$ which can be understood as potential output—the baseline upward-sloping line on Figure 5.5. The actual values of the cointegrating relationship oscillate around potential output. That is to say, the cointegrating relationship is a measure of the output gap.

²⁴The cointegrating relationships $\beta'Y_t$, or long-run “steady-states”

Figure 5.5: An intuitive representation of the cointegrated VAR model

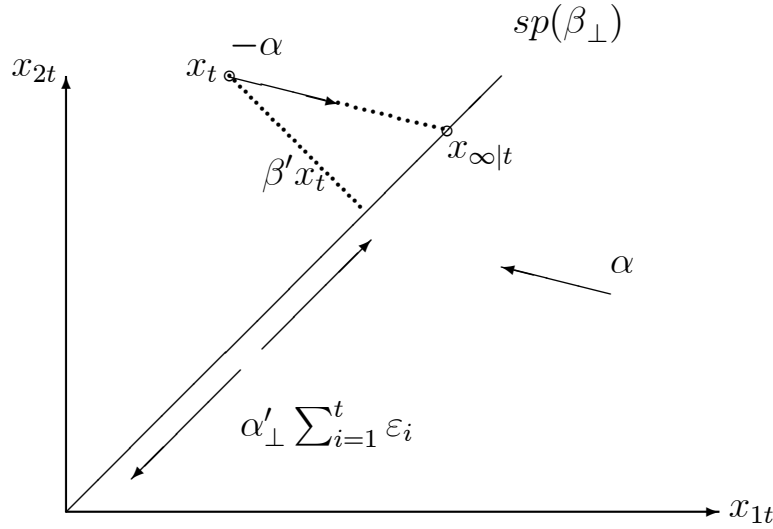


Figure 5.5 illustrates the case of two cointegrated variables with no short-run dynamics (Johansen 1996). The common stochastic trends $\alpha'_{\perp} \sum \varepsilon_i$ push the Y_t process along $sp(\beta_{\perp})$ while the deviations from that space are corrected for (pulled by) the adjustment coefficients α . In this sense, the cointegrating relationship represents a steady-state and deviations measure the output gap—deviations from the norm. By construction, the deviations have mean 0: $E(\beta' Y_{t-1}) = 0$. In other words, the output gap is zero in the long-run.

5.5 Results: evidence from stationary and non-stationary models

The previous section devoted time to the neoclassical idea that $N = f_1(\frac{w}{p})$ and to justify an alternative more Keynesian hypothesis according to which $N = f_2(R_{home}, R_{work})$. The neoclassical proposition implies that $f'_1 < 0$ and has been refuted using a simple graph. While this rebuttal is useful, it does not follow from it that the Keynesian proposition is correct. In this section we test the Keynesian proposition, according to which $f'_2 > 0$. Testing this proposition involves testing the significance and magnitude of the estimated coefficients in either a stationary model (using log-differenced variables) or a non-stationary model (using variables in logs only).

Results I: stationary models

All variables are log-differenced, and the most general stationary model writes, accounting for lags and a full set of deterministics:

$$\begin{aligned} \Delta \ln N_{private,t} = & \underbrace{\sum_{i=1} \beta_i \Delta \ln N_{private,t-i}}_{\text{own lags}} + \underbrace{\sum_{j=0} \beta_{H,j} \Delta \ln R_{home,t-j} + \sum_{k=0} \beta_{W,k} \Delta \ln R_{work,t-k}}_{\text{lagged independent variables}} \\ & + \underbrace{\sum_l \beta_{D,l} D_t + \beta_1 t + \beta_0 + \varepsilon_t}_l \\ & \text{deterministics} \end{aligned} \quad (5.11)$$

where the parameters of interest are the sum of the estimated $\beta_{H,i}$ and $\beta_{W,j}$. The dummy variables D_t account for outliers in the data, and the trend and constant account for all remaining factors influencing private employment $N_{private}$ beyond home and work relief. Both current and past values of home relief R_{home} and work relief R_{work} are allowed to matter for private employment²⁵. Each variable in $Y_t = [N_{private}, R_{home}, R_{work}]_t$ is distinctly non-stationary in log-levels but becomes stationary in differences –as previously discussed, so much so that an efficient estimation of equation (5.11) can be achieved using traditional OLS.

The results are presented in Figure 5.6 and 5.7. The overall fit of the model is strong, the residuals appear well-behaved (roughly stationary, random noise) and the model explains $R^2 = 60\%$ of the variance of private employment growth. The model minimizing the Hannan-Quinn information criteria is an ARDL(3,1,0), indicating that private employment growth is a function of: three of its own past lags, the current and immediately-past value of real home relief spending and the current value of real work relief spending.²⁶ However, the weights of those variables are significantly different. With the impact of home relief turning out non-significant at conventional levels (p – values in excess of 0.70) while work relief is found to have a positive and extremely significant effect on private employment growth.

To a certain extent, those results do make sense. The finding that real home relief spending has significantly influenced private employment growth is compatible with the broad Keynesian proposition that work relief crowds the private sector in, and not out. The mechanism underlying this correlation has already been discussed and can be conceptualized

²⁵The number of lags that matter for each variables has been chosen in order to minimize the Hannan-Quinn information criteria. This HQ criteria is consistent across models and is meant to provide a parsimonious number of lags for each variable

²⁶That is, AutoRegressive Distributed Lag (ARDL)

Figure 5.6: Estimates for the stationary model

Dependent Variable: DLOG(Nprivate) Method: ARDL				
Sample (adjusted): 1932M05 1938M06 Included observations: 74 after adjustments				
Number of models evaluated: 294 Selected Model: ARDL(3, 1, 0)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
DLOG((Nprivate(-1))	0.691433	0.104286	6.630134	0.0000
DLOG((Nprivate(-2))	0.056665	0.199206	0.284456	0.7770
DLOG((Nprivate(-3))	-0.177229	0.027253	-6.503185	0.0000
DLOG(Rhome)	-0.009033	0.025808	-0.350022	0.7275
DLOG(Rhome(-1))	0.006528	0.020176	0.323551	0.7473
DLOG(Rwork)	0.009412	0.001036	9.080899	0.0000
D 33M03M04	0.108334	0.005598	19.35371	0.0000
C	0.010569	0.021470	0.492263	0.6242
@TREND	-6.98E-05	0.000201	-0.346392	0.7302
R-squared	0.608627	Mean dependent var		0.003863
Adjusted R-squared	0.560458	S.D. dependent var		0.033779
S.E. of regression	0.022395	Akaike info criterion		-4.646391
Sum squared resid	0.032600	Schwarz criterion		-4.366167
Log likelihood	180.9165	Hannan-Quinn criter.		-4.534606
F-statistic	12.63526	Durbin-Watson stat		2.258940
Prob(F-statistic)	0.000000			

in terms of the induced or spillover effect that public spending has on private economic activity. However, it is puzzling that work relief spending, although supposed to work in the same way, does not appear to affect private employment growth significantly at all.

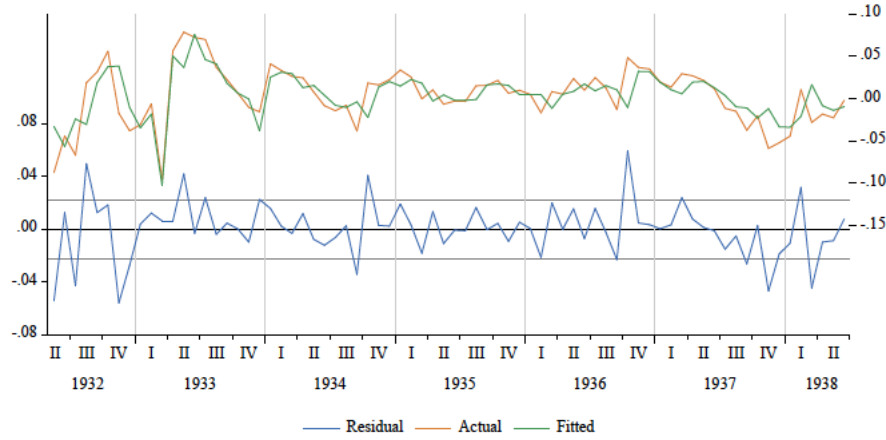
The magnitude of effect is hard to assess in the stationary model, as every variable is log-differenced. The interpretation is that private employment growth depends positively upon real work relief spending growth. The estimated coefficients reported on Figure 5.6 are therefore not exactly elasticities. Overall, we write that, in a stationary model, private employment growth is a positive function of real work relief growth:

$$\Delta \ln N_{private} = f_1(\Delta \ln R_{work}), f'_1 > 0 \quad (5.12)$$

Results II: non-stationary models

The Keynesian proposition that further private employment has been induced by real relief spending has so far received some empirical support using a stationary model in terms of rates of growth. The transformation of the variables of interest in rates of change was

Figure 5.7: Fit of the stationary model



imperative because our three variables are distinctly non-stationary in the sample under investigation (1932–1938). The drawback lies in the interpretation of the estimated coefficients as elasticities. This shortcoming can be lifted using the cointegration theory presented in section 5.4 within the context of the cointegrated VAR model. The cointegrating or “long-run” relationship in a cointegrated VAR model does not require variables to be differenced. This is because, by construction, the cointegrating relationship is stationary. We have already presented the general form of such long-run relationship in equation (5.10), which we rewrite as

$$E(\ln N_{private}) = \beta_H \ln R_{home} + \beta_W \ln R_{work} \quad (5.13)$$

which states that the level of private employment is, on average, a function of the level of spending on work and home relief.

Cointegration techniques present benefits. The first is that they provide an estimates of long-run effects, since all short-run effects are filtered out—see equation (5.8). In this sense, cointegration is a technique closer to what economists have in mind when there a long-run relationship between variables X, Y and Z.

This relationship may not hold for the data at specific, sporadic times.²⁷ Absent those deviations, a certain long-run pattern should emerge between variables X, Y and Z throughout the sample. The second is that the variables are presented in log-levels, so that the partial effects $\frac{\partial \ln N}{\partial R_{home}} = \beta_H$ and $\frac{\partial \ln N}{\partial R_{work}} = \beta_W$ in equation (5.13) can be directly interpreted as long-run *elasticities*.

²⁷Though they could be regarded as short run deviations.

Nevertheless, cointegration techniques have the important drawback that both the theory and practice of those methods is inherently difficult. However, the present case is relatively straightforward in that we are dealing with only three variables. A three variable system can show no signs of cointegration, in which case $r = 0$ in the Johansen cointegration test. This indicates that there is not any long-run pattern present in the data. Alternatively, there could be a $r = 1$ cointegrating relationship, indicating support for a long-run relationship between the economic variables of the form given in equation (5.13). In this sense, cointegration tests are crucial to unearth the patterns in the data. In what follows we present the results of cointegration tests: the Johansen Trace test in the context of a cointegrated VAR model, and the bounds test in the context of an ARDL model. In both cases the baseline model is the three-variable model consisting of $Y_t = [N_{private}, R_{home}, R_{work}]_t$ as well as outlier dummies, a constant and a trend. The cointegrated VAR model is estimated with two lags for each variable i.e. a VAR(2), while we find that an ARDL(2,0,0) is best.²⁸ Thus, the two models differ in the number of lags included.

The cointegration test results are summarized in Figure (5.8). The top part of the Figure presents the results for the cointegrated VAR model and indicates that we reject the hypothesis of no cointegration at conventional levels, and that there are $r = 1$ cointegrating relationships in the data. This result is clear as the p -values for $r = 0$ and $r = 1$ present a huge jump from 0.00 to 0.69, respectively. The bottom part of the Figure represents the bounds test in the ARDL model. The calculated test statistic of 3.68 should be compared to the critical values in the actual sample.²⁹ The bounds test indicates the presence of a cointegrating relationship somewhere around the 5 percent level, which is perfectly acceptable. Therefore, both the cointegrated VAR model and the ARDL model support the existence of a single cointegrating relationship, despite being different models with different lag structures.

Economically speaking, these results provide strong support for the existence of a long-run relationship between the number of jobs in the private sector and the amount of relief spending, in a form of equation (5.13). Therefore, one can confidently proceed to the estimation of the cointegrated VAR and ARDL models in their long-run forms. The estimated long-run relationships are given below and plotted on Figure 5.9.

The econometric evidence in favor of the existence of such cointegrating relationships is strong. Furthermore, the cointegrating relationships—which should be stationary—present constancy over time. An influential observation in January 1934 shows up on Figure (5.9), but we were unable to remove it using standard software packages using dummy variables. This influential observation is likely impacting the estimated coefficients. Yet, the extent of

²⁸These lag choices were made on the basis of the Hannan-Quinn information criterion. Other information criterion resulted in the same lag choices.

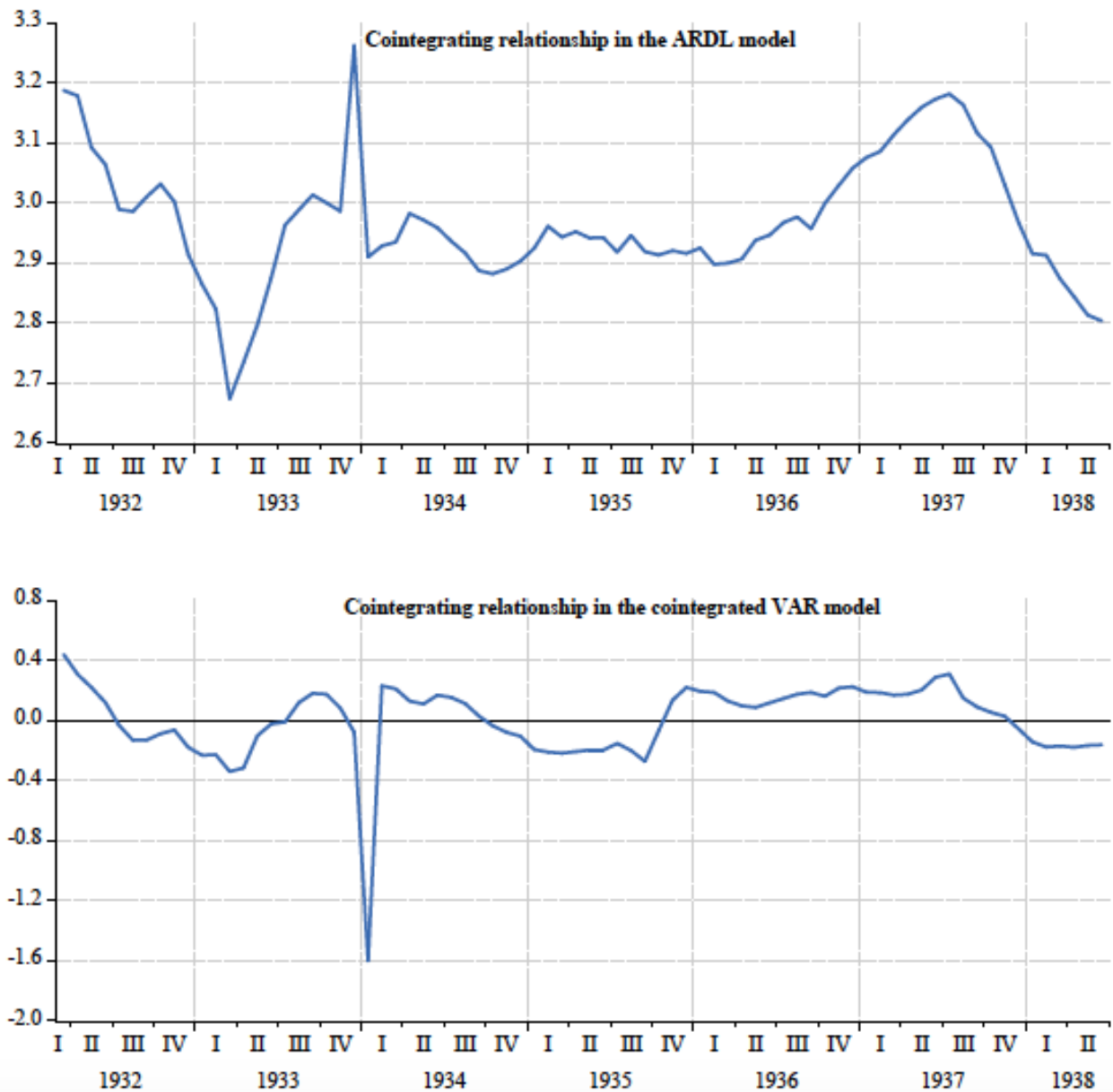
²⁹Not the asymptotic critical values, as the sample we are dealing with is quite small.

Figure 5.8: Cointegration test results in the cointegrated VAR and the ARDL models

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.433171	56.66139	42.91525	0.0013
At most 1	0.109739	13.51636	25.87211	0.6972
At most 2	0.059747	4.682046	12.51798	0.6425
Trace test indicates 1 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				
F-Bounds Test				
Null Hypothesis: No levels relationship				
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic k	3.686259 2.000000	10.00000 5.000000 2.500000 1.000000	Asymptotic: n=1000	
			3.380000	4.020000
			3.880000	4.610000
			4.370000	5.160000
Actual Sample	76.00000	10.00000 5.000000 1.000000	Finite Sample: n=80	
			2.713000	3.453000
			3.235000	4.053000
			4.358000	5.393000
		10.00000 5.000000 1.000000	Finite Sample: n=75	
			3.505000	4.213000
			4.120000	4.855000
			5.505000	6.298000

Note: see text. The cointegrated VAR model is a VAR(2) and the ARDL model is an ARDL(2,0,0). Both models include a time trend, a constant and dummy variables.

Figure 5.9: The cointegrating relationships



the bias is unknown. Nevertheless, the cointegrating relationships present a high degree of constancy over time.

$$\left\{ \begin{array}{l} \text{Cointegrated VAR(2):} \quad \ln N_{private} = +0.56 \ln R_{home} - 0.47 \ln R_{work} + 0.01t + 2.78 \\ \quad \quad \quad \quad \quad \quad \quad \quad (0.11) \quad \quad \quad (0.09) \quad \quad \quad (0.00) \\ \quad \quad \quad \quad \quad \quad \quad \quad [5.02] \quad \quad \quad [5.12] \quad \quad \quad [4.59] \\ \text{ARDL(2,0,0):} \quad \quad \quad \ln N_{private} = +0.07 \ln R_{home} + 0.10 \ln R_{work} + 0.01t \\ \quad \quad \quad \quad \quad \quad \quad \quad (0.09) \quad \quad \quad (0.06) \quad \quad \quad (0.00) \\ \quad \quad \quad \quad \quad \quad \quad \quad [0.71] \quad \quad \quad [1.63] \quad \quad \quad [2.88] \end{array} \right. \quad (5.14)$$

The estimated effects β_H and β_W of home and work relief policies are reported in system (5.14), where each estimated coefficient is reported with its standard deviation into parentheses and the t -statistics into square brackets. Though the magnitude of the estimated coefficients differs across models, the results indicate that private employment was crowded in by the TERA relief effort. The ARDL model is disappointing, in the sense that its estimated coefficients are either not significant or barely significant at the 10 percent level. If anything, the ARDL model indicates a positive relationship between relief spending and private employment. On the other hand, the cointegrated VAR model presents highly significant and sizable estimated coefficients. The estimates indicate a positive elasticity of home relief of $\beta_H = 0.56$, significant at the 1 percent level, but $\beta_W = -0.47$ is a significant, negative coefficient. This negative coefficient indicates that private employment and spending on work relief are negatively related in this model. In other words, intuitively, when private employment goes up and the economy recovers, there are less workers seeking relief employment.

Chapter 6

Summary

The econometric tests performed above can be categorized into two categories: broad results across all estimated models (stationary or non-stationary) and specific results such as the magnitude of the effects. The broad results are strongly supported by the data while, despite our best efforts, there remains some uncertainty about the specific results. Using an array of econometric methods, we make four findings.

First, there is little support for the neoclassical model, whereby the recovery from the Great Depression was led by a fall in real wages. We simply do not find evidence of such a mechanism. To the contrary, we find a positive correlation between private employment and real wage growth in the private sector,

Second, there is strong support for the Keynesian model. We find that relief spending was significantly related to the recovery in private employment. This was shown to be the case in the stationary model and in the cointegration tests. This suggests that relief spending influences private employment both in the short-run and in the long-run.

Third, overall, the relationship between relief spending and private employment was a positive one: the recovery of private employment came along with greater spending on relief.

Fourth, the magnitude of impact of public relief on private employment, though positive, is uncertain. The problem in estimating elasticities or multipliers of relief efforts lies in data that is either unavailable or particularly peculiar.

The Great Depression was a volatile era, which is evident in our dataset. The downturn provides challenges to efficient estimation of elasticities and multipliers. Despite the inherent difficulties related to any empirical study of this era, the above conclusions can be reached with a reasonable degree of certainty: Gov. Roosevelt's TERA advanced the private sector's economy.

Bibliography

- [1] Amenta, E., Clemens, E. S., Olsen, J., Parikh, S., and Skocpol, T. (1987). The political origins of unemployment insurance in five American states. *Studies in American Political Development*, 2, 137-182.
- [2] Amenta, E., and Carruthers, B. (1988). The Formative Years of U.S. Social Spending Policies: Theories of the Welfare State and the American States During the Great Depression. *American Sociological Review*, 53(5), 661-678.
- [3] Auerbach, A. J., & Gorodnichenko, Y. (2012). "Fiscal multipliers in recession and expansion." In *Fiscal Policy after the Financial crisis* (p. 63-98). University of Chicago Press.
- [4] Bellush, Bernard. (1955) *Franklin D. Roosevelt as Governor of New York*. New York, New York: Columbia University Press.
- [5] Bernanke, B. S. (1994). "The macroeconomics of the Great Depression: A comparative approach" (No. w4814). *National Bureau of Economic Research*.
- [6] Beveridge, W. H. (1909). *Unemployment: A Problem of Industry*. New York: Longmans Green & Co., 193
- [7] Beveridge, S., and Nelson, C. R. (1981). "A new approach to decomposition of economic time series into permanent and transitory components with particular attention to measurement of the 'business cycle'." *Journal of Monetary economics*, 7(2), 151-174.
- [8] Birdseye, Clarence Frank. C. F. (1890). *The Revised Statutes, Codes and General Laws of the State of New York: Containing the Text, Carefully Compared with the Original, of All the General Statutory Law of the State in Force on January 1st, 1890, Including the Constitution of the State, the Revised Statutes, the Codes of Civil and Criminal Procedure and the Penal Code* (Vol. 2). LK Strouse & Company.

- [9] ———. (1896). *The Revised Statutes, Codes and General Laws of the State of New York: Containing the Text, Carefully Compared with the Original*. Vol. 1. Baker, Voorhis.
- [10] Brandt, Lilian. (1932). *An impressionistic view of the winter of 1930-31 in New York City, based on statements from some 900 social workers and public-health nurses; a report made to the executive committee of the Welfare Council's Coordinating Committee on Unemployment, in the course of the Research Bureau's study of social welfare during the business depression*. New York: Welfare Council of New York City.
- [11] Boyer, George R. (2004). "The evolution of unemployment relief in Great Britain." *Journal of Interdisciplinary History* 34, no. 3: 393-433.
- [12] Burns, A., & Kerr, P. (1937). Survey of Work-Relief Wage Policies. *The American Economic Review*, 27(4), 711-724.
- [13] Carlson, Mark, Kris James Mitchener, and Gary Richardson. (2011). "Arresting banking panics: Federal Reserve liquidity provision and the forgotten panic of 1929." *Journal of Political Economy* 119, no. 5: 889-924.
- [14] City of Hudson, New York. (1785). Charter of the City of Hudson, L.1785, c. 83.
- [15] Chow, Gregory C., and An-loh Lin. (1971). "Best linear unbiased interpolation, distribution, and extrapolation of time series by related series." *The Review of Economics and Statistics*: 372-375.
- [16] Cobb, C. W., & Douglas, P. H. (1928). "A theory of production." *The American Economic Review*, 18(1), 139-165.
- [17] Cole, Harold L., and Lee E. Ohanian. (2001) "The Great Depression in the United States from a neoclassical perspective." *Handbook of Monetary and Fiscal Policy*: 159.
- [18] ———. (2004) "New Deal policies and the persistence of the Great Depression: A general equilibrium analysis." *Journal of Political Economy* 112, no. 4: 779-816.
- [19] Committee on Stabilization of Industry for the Prevention of Unemployment (1930). "Less unemployment through stabilization of operations."
- [20] Davidson, J. A. (1988). Sport for the People: New York State and Work Relief 1930's Style. *Canadian Journal of History of Sport*, 19(1), 40-51.
- [21] Davis, K. S. (1985). *FDR: The New York Years, 1928-1933* (Vol. 2). Random House Incorporated.

-
- [22] Emergency Relief Bureau of New York City (1937). "Final report of the Emergency Relief Bureau of the City of New York." New York Mayor's Office.
- [23] Feder, L. H. (1936). *Unemployment relief in periods of depression: A study of measures adopted in certain American cities, 1857 through 1922*. New York: Russell Sage Foundation.
- [24] Fernow, Berthold (1883). *Documents relative to the colonial history of the state of New York*. Weed, Parsons and Company: Albany, NY.
- [25] Fox, Bonnie R. (1969). "Unemployment Relief in Philadelphia, 1930-1932: A Study of the Depression's Impact on Voluntarism." *The Pennsylvania Magazine of History and Biography* 93, no. 1: 86-108.
- [26] Giovannoni, O. G. (2014). What do we know about the labor share and the profit share? Part I: Theories. *Levy Economics Institute of Bard College*. Working Paper no. 803.
- [27] Gordon, Robert J., and Robert Krenn. (2010). The end of the great depression 1939-41: Policy contributions and fiscal multipliers. No. w16380. *National Bureau of Economic Research*.
- [28] Haavelmo, T. (1945). "Multiplier effects of a balanced budget." *Econometrica: Journal of the Econometric Society*, 311-318.
- [29] Hendry, D. F., and Juselius, K. (2000). "Explaining cointegration analysis: Part 1." *The Energy Journal* 21(1): 1-42
- [30] ———. (2001). Explaining cointegration analysis: Part II. *The Energy Journal*, 75-120.
- [31] Hicks, J. R. (1937). Mr. Keynes and the "classics"; a suggested interpretation. *Econometrica: Journal of the Econometric Society*, 147-159.
- [32] Holcombe, John L. and Lowe, Robert C. (1936). "Legislative trends in public relief and assistance, December 31, 1929 to July 1, 1936." Works Progress Administration, Division of Social Research.
- [33] Hopkins, Harry Lloyd (1938). *What is the American Way?*. Works Progress Administration, 1938.
- [34] Hopkins, June. (2015). "Temporary Emergency Relief Administration." October 1, 1931. *Social Welfare Library*.

- [35] Ingalls, R. P. (1974). *Herbert H. Lehman and New York's little new deal*. New York University Press.
- [36] Jevons, W. S. (1894). *The state in relation to labour*. (Vol. 9). London: Macmillan.
- [37] Johnson, Grant S (2012). "Emergency employment, public enjoyment: Pre-new deal work relief in Onondaga County, New York, 1931-1933."
- [38] Kaboub, Fadhel. (2007). "Employment guarantee programs: A survey of theories and policy experiences."
- [39] Kahn, R. F. (1931). "The relation of home investment to unemployment." *The Economic Journal*, 41(162), 173-198.
- [40] Keller, R. C. (1962). Pennsylvania's Little New Deal. *Pennsylvania History: A Journal of Mid-Atlantic Studies*, 29(4), 391-406.
- [41] Kessner, Thomas. (1993). "Fiorello H. LaGuardia." *The History Teacher* 26, no. 2: 151-159.
- [42] Keynes, J. M. (1936). *General theory of employment, interest and money*. Palgrave Macmillan: UK
- [43] ———. "The general theory of employment." *The Quarterly Journal of Economics* 51, no. 2 (1937): 209-223.
- [44] Lester, R. (1934). Emergency Employment in Theory and Practice. *Journal of Political Economy*, 42(4), 466-491.
- [45] Leontidou, Lila. (1993). "Informal strategies of unemployment relief in Greek cities: the relevance of family, locality and housing." *European Planning Studies* 1, no. 1: 43-68.
- [46] Loucks, W. N. (1932). Public Works Planning and Economic Control: Federal, State, and Municipal." *The Annals of the American Academy of Political and Social Science*, 162(1), 114-120.*
- [47] Lundberg, E. (1932). "The New York State Temporary Emergency Relief Administration." *Social Service Review*, 6(4), 545-566.*
- [48] ———. (1934). "Who Are the New York Emergency Relief Families?" *Social Service Review*, 8(4), 616-627.

-
- [49] ———. (1935). "A Cross-Section of the Relief Load in Upstate New York." *Social Service Review*, 9(3), 484-497.
- [50] Lurie, H. (1931). The Place of Federal Aid in Unemployment Relief. *Social Service Review*, 5(4), 523-538.
- [51] MacNeil, Douglas Harrison (1938). "Seven years of unemployment relief in New Jersey, 1930-1936." *Washington, Committee on social security science research council*.
- [52] Marshall, A. (1890). *Principles of economics: an introductory volume*.
- [53] McVeigh, R. (2001). Power Devaluation, the Ku Klux Klan, and the Democratic National Convention of 1924. In *Sociological Forum* (Vol. 16, No. 1, p. 1-30). Springer Netherlands.
- [54] Menger, K. (1892). *On the origin of money*. *The Economic Journal*, 2(6), 239-255.
- [55] Mitchell, William F., and L. Randall Wray. (2009). "Full employment through a job guarantee: a response to the critics." *Centre of Full Employment and Equity*. Working paper no. 04-13.
- [56] New York City (1936). *New York advancing; a scientific approach to municipal government: an accounting to the citizens by the departments and boroughs of the city of New York, 1934-1935*, submitted to F. H. La Guardia, Mayor."
- [57] New York Governor (1931). *Public Papers*. Albany, NY.
- [58] New York State. (1935). The administration of home relief in New York city. Submitted to Governor Herbert H. Lehman.
- [59] ———. (1930). "Statement showing the population, assessed value of real and personal property, direct state receipts and disbursements for general purposes, tax rates, amount of direct state levies, the funded state debt, sinking funds and the government, with per capita of receipts and disbursements."Part III: Table of comparative statistics of the State of New York for fifty years, 1881-1930. p. 350-51 in *Annual report of the Comptroller, State of New York*.
- [60] New York State Legislature. (1931). "Laws of New York—by Authority, Chapter 798 of the New York Legislature Extraordinary Session."
- [61] New York State Senate (1904). *Reprinted from Documents of The Senate of the State of New York, One Hundred and Twenty Seventh Session, 1904, Vol. XIV. No. 22*,

- Part 4, Annual Report of the State Board of Charities for the Year 1903, In Three Volumes with Statistical Appendix to Volume One bound separately.* Volume Three Charity Legislation in New York 1609 to 1900.
- [62] New York State Department of Labor (1940). *Trend of Employment in New York State Factories from 1914 to 1939*. Special Bull. No. 206: Albany, NY.
- [63] *New York Times* (1928a). "Union Men Applaud Roosevelt Pledge; Labor Leaders Hail His Promise to Put Through Real 48-Hour Law in Industry." October.
- [64] ———. (1928b). "Support F.D. Roosevelt. Republicans Backing State Democratic Ticket" October.
- [65] ———. (1928c). "Roosevelt Sees Even Run Up-State; He Declares Estimate of 300,000 Majority There for Ottinger Will be Cut to Zero." October 29.
- [66] ———. (1928d). "Roosevelt Urges Reform of Courts." October 31.
- [67] ———. (August 1931a): "Governor Considers \$25,000,000 Relief for Unemployment; Tentative Plan Would Raise Money by Taxes on Cigarettes and Cosmetics. Legislature Meets Today Roosevelt Will Not Present His Recommendations for Several Days. GIFFORD OPENS OFFICES National Relief Director Will Confer Today on Local Drives for Funds. Leaders Urge Relief Action. Program Subject to Change. \$25,000,000 RELIEF FOR UNEMPLOYMENT Democrats to Push Measures. Proposes Plan for Long Island."
- [68] ———. (September 1931b): Warn, W.A. "Roosevelt Decides on Relief Heads; Three Selected for Commission, and Names Will Be Revealed When All Have Accepted. One member a woman She Will Direct Aid for Her Sex and All Are to Search for Suffering Hidden by Pride. GOVERNOR'S PRESTIGE RISES Republicans Quit Albany Dejectedand Conceding Political Victoryto Roosevelt. Fears Pride Will Hide Distress. Swift Action on Bills Likely. Democrats Foresee Benefit."
- [69] ———. (October 1944): "Alfred E. Smith Dies Here at 70; 4 Times Governor."
- [70] Pigou, A. C. (1933). "A note on imperfect competition." *The Economic Journal*, 43(169), 108-112.
- [71] Pringle, Henry F. (1927). *Alfred E. Smith: A critical study*. Macy-Masius: New York.
- [72] Radomski, Alexander L, (1947). *Work Relief In New York State, 1931-1935*. King's Crown Press.

-
- [73] Ramey, V. A. (2011). Can government purchases stimulate the economy?. *Journal of Economic Literature*, 49(3), 673-685.
- [74] Rappoport, Peter, and Eugene N. White. (1994). "Was the crash of 1929 expected?." *The American Economic Review* 84, no. 1: 271-281.
- [75] Ricardo, David. (1888) "Essay on the Funding System" in *The Works of David Ricardo. With a Notice of the Life and Writings of the Author*, by J.R. McCulloch, London: John Murray.
- [76] Robinson, J. (1973). What has become of the keynesian revolution? In Robinson, J., editor, *After Keynes*, pages 1–11. Basil Blackwell, Oxford.
- [77] Romer, C. and D. Romer (2013) The Missing Transmission Mechanism in the Monetary Explanation of the Great Depression, *The American Economic Review*, Papers and Proceedings, 103, 3, 66-72.
- [78] Roosevelt, Franklin D. (1924). "Speech nominating Smith." (speech file 248), June 26, 1924. FDR Presidential Library: Hyde Park, NY.
- [79] ———. (1928a). Campaign correspondence, New York State.
- [80] ———. (1928b). Acceptance Speech of Franklin D. Roosevelt, Democratic Candidate for Governor (speech file 261), New York State. FDR Presidential Library: Hyde Park, NY.
- [81] ———. (1928c). Remarks about his health (speech file 298). FDR Presidential Library: Hyde Park, NY.
- [82] ———. (1928d). "Speech opening campaign." (speech file 262). October 17. FDR Presidential Library: Hyde Park, NY.
- [83] ———. (1928e). "Hornell, NY- Campaign speech." (speech file 269). October 19. FDR Presidential Library: Hyde Park, NY.
- [84] ———. (1931a). "Speech on State Government"(speech file 438a), August 21. FDR Presidential Library: Hyde Park, NY.
- [85] ———. (1931b). "Text of Gov. Roosevelt's message on unemployment relief." August 28. *New York Times*.
- [86] ———. (1931c). "Veto message." September 23. FDR Presidential Library: Hyde Park, NY.

- [87] ———. (1931d). "Address to State Welfare Workers"(speech file 448), October 29. FDR Presidential Library: Hyde Park, NY.
- [88] ———.Organization of Block-Aid for Unemployment Relief in New York City(speech file 468), March 16, 1932. FDR Presidential Library: Hyde Park, NY.
- [89] Ryan, John. (1928) "Religion in the Election of 1928," *Current History*.
- [90] Samuelson, P. (1939). Interactions between the Multiplier Analysis and the Principle of Acceleration. *The Review of Economics and Statistics*, 21(2), 75-78
- [91] Schneider, David Moses (1938). *The history of public welfare in New York State, 1609-1866*. Vol. 1. University of Chicago Press,
- [92] Seldes, Gilbert. (1933). *The Years of the Locust*. Little, Brown, and Company..
- [93] Share, Allen J. (1995). "Tweed, William M(agear) 'Boss'" in Jackson, Kenneth T., ed. (1995), *The Encyclopedia of New York City*, New Haven: *Yale University Press*, p.1205-1206
- [94] Skocpol, T., and Finegold, K. (1982). "State capacity and economic intervention in the early New Deal." *Political science quarterly*, 97(2), 255-278.
- [95] ———. (1990) "Explaining New Deal Labor Policy." *The American Political Science Review*, 84, 4, 1297-315.
- [96] Slichter, S. H. (1934). The Economics of Public Works. *The American Economic Review*, 24(1), 174-185.
- [97] State of New York Court of Appeals (1936). Chamberlain v. NYS Industrial Commissioner Andrews and NYS Attorney General Bennett - Economic Brief.*
- [98] Stokes, I.N. Phelps. *New York past and present, its history and landmarks 1524-1939 : one hundred views reproduced and described from old prints, etc., and modern photographs, compiled from original sources for the New York historical society on the occasion of the New York World's fair, 1939*. New York: Plantin Press, 1939.
- [99] Stryker, Lloyd Paul. (1935). "Committee Counselor Report: In the matter of the investigation of the administration of unemployment relief in the city of New York, etc., pursuant to a resolution adopted by the Board of Aldermen of the city of New York. Report to Honorable Bernard S. Deutsch and members of the Aldermanic Committee to Investigate the Relief Administration in the City of New York. City " City Hall: New York, NY.

-
- [100] Tcherneva, Pavlina R. (2003). "Job or Income Guarantee?." C-FEPS Working Paper No 29.
 - [101] ———. (2006). Universal assurances in the public interest: evaluating the economic viability of basic income and job guarantees. *International Journal of Environment, Workplace and Employment*, 2(1), 69-88.
 - [102] ———. (2012a). "Employer of Last Resort." *The Elgar Companion to Post Keynesian Economics* 2.
 - [103] ———. (2012b). Permanent on-the-spot job creation—the missing Keynes Plan for full employment and economic transformation. *Review of Social Economy*, 70(1), 57-80.
 - [104] ———. (2014). "Full employment: The road not taken."
 - [105] ———. (2015). "Completing the Roosevelt Revolution: Why the Time for a Federal Job Guarantee Has Come."
 - [106] Tcherneva, Pavlina R., and L. Randall Wray. (2005). "Employer of Last Resort: A Case Study of Argentina's Jefes Program."
 - [107] The Temporary Emergency Relief Administration of New York State (1931-32) "The interpretation and application of emergency relief laws by the Temporary Emergency Relief Administration." Albany, NY.
 - [108] ———.(1932a). "Report of the New York State TERA." Albany, NY.
 - [109] ———.(1932b). "Food allowances." Albany, NY.
 - [110] ———.(1932c). "Emergency unemployment relief laws." Albany, NY.
 - [111] ———.(1934a). "Statutes, regulations, and opinions and interpretations of counsel." Albany, NY
 - [112] ———.(1934b). "Relief activities of city and county welfare districts in cooperation with the State Temporary Emergency Relief Administration, Nov.1, 1931-December 31, 1933." Albany, NY.
 - [113] ———.(1935a). "Public employment relief in New York State - fourth year, September 1, 1934 - August 31, 1935." Albany, NY. *
 - [114] ———.(1935b). "Budget manual: The family budget as a basis for home relief." Albany, NY.*

- [115] ———.(1936). “Unemployment relief in New York State.” Albany, NY.
- [116] ———.(1937). “Five Million People, One Billion Dollars: Final Report of The Temporary Emergency Relief Administration, November 1, 1931—June, 30, 1937.” Albany, New York.
- [117] Tobin, James (2014). *The man he became: How FDR defied polio to win the presidency*. Simon and Schuster.
- [118] U.S. Census Bureau (2013). “X-13 ARIMA-SEATS Seasonal Adjustment Program.”
- [119] U.S. House of Representatives (1928). “Platforms of the two great political parties, 1856-1928 inclusive.” Comp. by George D. Ellis under direction of Wm. Tyler Page, clerk U.S. House of Representatives. Washington [Govt. Print. Off.] 1928.
- [120] ———. (2017). “Tax Cuts and Jobs Bill.” Ways and Means Committee. Washington, DC.
- [121] Walras, L. (1874). 1954. *Elements of pure economics*.
- [122] White, Eugene N (1990). "The stock market boom and crash of 1929 revisited." The Journal of Economic Perspectives 4, no. 2.
- [123] Wray, L. R. (1998). *Understanding modern money* (Vol. 11). Cheltenham: Edward Elgar.
- [124] ———. (2015). *Modern money theory: A primer on macroeconomics for sovereign monetary systems*. Springer.

Appendix: List of interpolators used for the calculation of NYS GDP deflator

NSA = not seasonally adjusted. * = data at the national level (not NYC/NYS). All data available on 1925M01—1938M12.

For housing costs (1):

- Value of Plans for New Buildings, Manhattan for New York, NY, Millions of Current Dollars, Monthly, NSA

For materials / PPI (average of those 14 items):

- Wholesale Price of Pig Lead for New York, Cents per Pound, Monthly, NSA
- Wholesale Price of Carbonate of Lead (White Lead, American, in Oil, Kegs) for New York, Dollars per Hundred Pounds, Monthly, NSA
- Wholesale Price of Lead Pipe for New York, Dollars per Hundred Pounds, Monthly, NSA
- Wholesale Price of Copper Sheet, Hot Rolled, Base Sizes for New York, Cents per Pound, Monthly, NSA
- Wholesale Price of Ethyl Alcohol, Grain for New York, Dollars per Gallon, Monthly, NSA
- Wholesale Prices of Linseed Oil; Raw, in Barrels for New York, Cents per Gallon, Monthly, NSA
- Wholesale Price of Refined Cottonseed Oil, Prime Summer Yellow for New York, Cents per Pound, Monthly, NSA
- Wholesale Price of Slab Zinc for New York, Cents per Pound, Monthly, NSA
- Wholesale Price of Copper Wire for New York, Cents per Pound, Monthly, NSA
- Wholesale Price of Plate Glass, 3-5 Square Feet for New York, Cents per Square Foot, Monthly, NSA
- Wholesale Price of Rubber, Para Island; Plantation for New York, Cents per Pound, Monthly, NSA
- Wholesale Price, Yellow Pine for New York, Dollars per 1000 Feet, Monthly, NSA

- Wholesale Price of Common Bricks, Domestic for New York, Dollars per Thousand, Monthly, NSA
- Wholesale Price of Straits Tin, Pigs for New York, Cents per Pound, Monthly, NSA

For fabric / clothing (average of those 3 items):

- Wholesale Price of Rayon Yarn for New York, NY, Dollars per Pound, Monthly, NSA
- Wholesale Price of Cotton Yarn, Mills for United States, Cents per Pound, Monthly, NSA
- Wholesale Price of Japanese Raw Silk, White for New York, Dollars per Pound, Monthly, NSA

For energy/heating (average of those 2 items):

- * Retail Price of Bituminous Coal for United States, Average Price per Short Ton in Dollars, Monthly, NSA
- Retail Price of Anthracite Coal for New York, NY, Average Price per Short Ton in Dollars, Monthly, NSA

For foodstuffs (average of those 14 items):

- Wholesale Price of Fresh Milk for New York, Dollars per 100 Pounds, Monthly, NSA
- Retail Price of Prunes for New York, NY, Cents per Pound, Monthly, NSA
- Wholesale Price of Tea for New York, Cents per Pound, Monthly, NSA
- Retail Price of Sugar for New York, NY, Cents per Pound, Monthly, NSA
- Retail Price of Canned Tomatoes, No.2 Can for New York, NY, Cents per Can, Monthly, NSA
- Retail Price of Bread for New York, NY, Cents per Pound, Monthly, NSA
- Retail Price of Lard for New York, NY, Cents per Pound, Monthly, NSA
- Index of Wholesale Prices of Lamb and Mutton for Chicago, IL and New York, NY, Index 1926=100, Monthly, NSA
- Wholesale Price of Eggs, Fresh Gathered for New York, Cents per Dozen, Monthly, NSA

- Wholesale Price of Poultry for New York, Cents per Pound, Monthly, NSA
- Wholesale Price, Beef Fresh, Carcass Dressed, Western Native Skins for New York, Cents per Pound, Monthly, NSA
- Retail Price of Bananas for New York, NY, Cents per Dozen, Monthly, NSA
- Retail Price of Coffee for New York, NY, Cents per Pound, Monthly, NSA

* Index of Retail Prices of Food at Home for United States, Index 1957-1959=100, Monthly, NSA